

St. Bartholomew's Hospital



JOURNAL.

VOL. XI.—No. 9.]

JUNE, 1904.

[PRICE SIXPENCE.

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The Annual Subscription to the Journal is 5s., including postage. Subscriptions should be sent to the MANAGER, W. E. SARGANT, M.R.C.S., at the Hospital.

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St. Bartholomew's Hospital Journal,

JUNE 1st, 1904.

"Æquam memento rebus in arduis
Servare mentem."—Horace, Book ii, Ode iii.

Editorial Notes.

A DAY in the first week of July has been fixed for the laying of the foundation stone of the new buildings. His Majesty the King, who was for thirty-four years the President of the Hospital and is now its Patron, has finally signified his intention of performing the ceremony himself. We hope that he will be accompanied by Her Gracious Majesty the Queen, whose name, always associated with hospital improvement schemes, stands at the head of our Appeal Fund with a donation of £1000.

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WE understand that there will be no formal procession, but it is proposed to erect some stands in the neighbourhood of the Hospital along the route, and to devote the profits to the Appeal Fund. May there be many to watch this Royal progress to our Royal and Ancient Hospital.

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THE Governors of the Hospital have made a handsome addition to the portraits in the Great Hall. They have secured a copy of Mr. Luke Fildes' painting of His Majesty the King, which was exhibited in the Academy in 1901, and in recognition of his invaluable services as President have placed it in a position of honour recently occupied by the Patron Saint.

* * *

IN connection with the appeal for funds several concerts are announced during the summer. Signorina Giulia Ravogli has very generously arranged for the first of a series, which will be held at the Queen's Hall on Friday, June 3rd, at 8.30 p.m. The Leeds Choral Union has very kindly consented to come to London for the special purpose of taking part in the performance of Gluck's "Orfeo." The concert is under the patronage of Her Majesty the Queen and much nobility.

* * *

THE Students' Union also is anxious to arrange a special smoking concert or dramatic entertainment in aid of the Hospital funds, but we hope that such an entertainment may become an annual affair. The various clubs of the Hospital are under many obligations to other clubs, and as we have no means of providing dinner for our cricket and football visitors at Winchmore Hill this might be one method of returning our thanks to those who so kindly entertain the members of our clubs.

* * *

VIEW-DAY has come and gone. The weather behaved itself, and everything was successful. The Hospital was looking its best. We wonder with admiration who is responsible for the exact precision by which the last coat of paint on the Great Hall door is timed to dry as the first

visitor appears through the Hospital gates. The wards looked gay and beautiful ; it would be invidious, if not impossible, to say which was the most elegantly decorated. All the teas were good : we speak with feeling, for the generous dispensers of each ward's hospitality would scarce let us pass empty-handed.

* * *

THE dispensary, as usual, was the great attraction. How the fair visitors delight to see the process of pill-making, and to hear of Epsom salts in bulk being broken into pieces by a pick-axe as if it were coal ! Even here the faint and weary were sustained with home-brewed soda-water or lemonade.

* * *

ONE innovation there was, if not more. Three of the newly-appointed lady governors accompanied the Treasurer and Almoners on their tour of inspection. We offer them a hearty welcome to their office, and express the hope that their advent may be an omen for the increased prosperity of the Hospital in the near future. We have heard the sneer of the misogynist, but we may remark in the words of the Hospital's greatest aphorist "We do not admire men so much that we despise women. Inaccuracy is a woman's greatest fault."

* * *

WE did not like the coloured water in the fountain—*ἄριστον μὲν ὄνειρον*. Methylene blue and carbol-fuchsin have their place in the laboratory indeed, but they can never improve upon the beauty of clear natural water.

* * *

THE Past and Present cricket and tennis matches will take place on Wednesday, June 8th, at Winchmore Hill. The Finance Committee are sparing no effort to make the day a success. All Bartholomew's men should try to be there. Much more can be made of this day than in past years. It should become a day of reunion for Past and Present. Nowadays the Present are very slack, and the Past are apt to forget that their *alma mater* has any claim upon their patriotism. We should like to see more unity of interests among Past and Present Bartholomew's men, and this is what we hope to attain in some degree by the Students' Union. All past members of the Hospital are members of the Union.

* * *

THE Athletic Club has decided to hold its Annual Sports at Winchmore Hill this year on Wednesday, June 15th. We think that this should induce more men to take an interest in the Sports. Of late years the Sports at Stamford Bridge has been a dull affair, and the entries have been small. There are to be several additional events this year, such as team races, sack and obstacle races. We hope that all intending competitors for the more serious events will take the trouble to go down to Winchmore Hill and

get into good training before the day. The United Hospital Sports have been fixed for June 24th.

* * *

WE have every reason to believe that at last something is being done to improve upon the present system of catering at the Hospital. We hear that a new caterer is coming who will be under the supervision of a catering committee, and that the tariff also is to be revised.

* * *

MUCH concern has been expressed lately upon the disappearance of Sir James Paget's portrait from the Great Hall. We learn, however, that it has been lent for an exhibition, and will be restored shortly.

* * *

MR. LANGTON has been elected President of the Medical Society, in succession to Dr. P. de Havilland Hall, also a Bartholomew's man.

* * *

MR. J. C. LANGDON, F.R.C.S., who will be remembered by old Bartholomew's men as Mr. Stanley's house surgeon, has been presented on his retirement from the office of Surgeon to the Royal Hants County Hospital, Winchester, with a handsome service of plate in an oak chest. This was in grateful recognition of his valuable services to that institution during a period of upwards of forty years.

* * *

MR. D'ARCY POWER has resigned his position as Surgeon to the Throat Department. Mr. W. D. Harmer takes his place.

* * *

MR. HAROLD WALKER, almost the last of Mr. Marsh's house surgeons, has been appointed Acting Honorary Surgeon to the North Ormesby Hospital at Middlesborough. We congratulate him most heartily on this step to fame in the provinces.

* * *

THE Summer Concert given by the Junior Staff and the Musical Society will be held on Wednesday, June 29th.

* * *

THE Summer Sessional Address of the Abernethian Society will be given by Dr. F. W. Andrewes on Thursday evening, June 23rd ; the subject of the paper will be "The Pathology of Common Honesty." The subject and Dr. Andrewes' personality should be enough to ensure a crowded meeting.

* * *

WE are sorry to have seen such a painful ending to Budge's career as night-watchman. He may not have been so useful as a younger man, but still his duties were light. His offence, according to report, was not so serious as it appeared at the Guildhall. Still it is a wholesome lesson for all to recognise that the goods of a public institution are not common property.

* * *

WE miss another familiar figure from the surgery. Elizabeth Crisp alias "The Beetle," known to herself as "The Surgery Beadle," and to her fellow-scrubbers as "Mrs. Beetle." She was deaf, very deaf, but a good-natured soul withal, and amusing to behold. She was always late in the morning, but kept her grates clean, and in her parting words of wisdom to her successor her character is summed up, "I does all I can and leaves the rest."

* * *

WE hear that there is some difference of opinion on the question of Sunday tennis at Winchmore Hill. It could not be otherwise. It is perhaps unfortunate for the Council of the Students' Union that this should have been the first move on its part which has been recognised by the Medical School Committee. We know that the Council is working bravely, and does not know exactly where to begin.

The question of Sunday observance is far too difficult to discuss in the short space at our disposal. But we understand that the chief argument in favour of the present move was to give the resident staff an opportunity of obtaining some harmless recreation in the fresh air of the country on their one free day; and who will gainsay them? Even the Primate of All England does not gainsay Mr. Balfour his game of golf on Sunday! The Council, we are informed, advises the employment of no Sunday labour; each must do his own work. We think, on the whole, the Council is right in its move.

* * *

THE fourth annual South African Civil Surgeons Dinner will take place on Tuesday, June 28th, at the Hotel Cecil, at 7.30. Mr. G. H. Makins, C.B., will take the chair, and Lord Methuen will be the principal guest of the evening. Civil surgeons who wish to attend should communicate with Mr. C. Gordon Watson, 44, Welbeck Street, W. The price of tickets is 10s. 6d., and guests may be invited.

* * *

WE regret that it has been necessary to hold over one or two articles till the July number of the JOURNAL, notably Dr. Herringham's Inaugural Address on "Forensic Medicine," and a humorous article upon "Some Recent Researches in Bacteriology."

* * *

WE regret very much that owing to pressure of space at the last minute we are compelled to hold over till the next issue of the JOURNAL a further list of fifty subscribers to the General Fund.

* * *

THE following is the additional list of Bartholomew's men who have subscribed to the Special Journal Fund for the Pathological Block.

PATHOLOGICAL FUND.

	£	s.	d.
Amount already published	490	18	6
T. J. Horder, Esq., M.D.	5	5	0
Surgeon L. A. Baiss, R.N.	5	5	0
S. G. Sloman, Esq.	10	0	0
*F. C. Shrubsall, Esq., M.D.	5	5	0
W. Black Jones, Esq., M.D.	21	0	0
J. A. Arkwright, Esq., M.D.	5	5	0
Lieut.-Col. T. A. Dixon, R.A.M.C.	5	5	0
M. Cutcliffe, Esq.	2	2	0
W. Wyllis, Esq.	1	1	0
*A. Lyndon, Esq., M.D.	5	0	0
W. Peacey, Esq., M.D.	5	5	0
*H. Symonds, Esq., M.D.	5	5	0
T. A. Mayo, Esq., M.B.	1	1	0
F. C. Poynder, Esq., M.B.	5	0	0
Per T. A. Mayo, Esq., M.B.—			
W. J. Jolliffe, Esq.	2	2	0
S. F. Pollard, Esq.	1	1	0
K. W. I. Mackenzie, Esq.	1	1	0
Collected by W. Soltau Eccles, Esq.	8	9	0
Total	£581	5	6

* Has also subscribed to General Fund.

Thomas of St. Osyth's.

By NORMAN MOORE, M.D.,

Physician to St. Bartholomew's Hospital.

RAHERE died on September 20, 1144, a day which was long observed as a feast both in the hospital and in the priory. "Dies nativitatibus ejus in celestis," the anniversary of the birth into heaven of their benefactor as his biographer terms it, was deemed a proper day of rejoicing for men convalescent from illness, for the withered, the blind, the dumb, and the deaf, and a suitable occasion for the public to make gifts of money, of corn, and of household furniture to the canons and to the brethren for the use of the poor and of the church.

In the account of him given in the *Liber fundacionis*, written while some of his contemporaries were still living, it is not mentioned that Rahere attained to a great age, and the effigy on his tomb as well as the sequence of events of his life indicate that he was born towards the end of the reign of William the Conqueror and died when about sixty. The day of his death was a Wednesday, and was within the octave of the Feast of the Exaltation of the Cross (September 14th) in honour of which he founded the Hospital. This has been forgotten in later times, but is recorded in the Redituarium of the reign of Henry VI where the record of the Masters is headed "Nomina Magistrorum Hospitalis Sancti Bartholomei nuncupati et in Honore Exaltacionis Sancte Crucis fundati." An illuminated initial of the same

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book contains a picture of Brother John Cok, the Redituarius, kneeling before a cross held in the air by an angel, in allusion to this dedication of the house. The words "Crucis exaltacio ducat nos celi consorcio" seem to issue from the brother's mouth. Another illuminated initial shows John Wakeryng, master from 1422 to 1466, kneeling before Saint Helen with the words "crucis invencio sit nobis salus et proteccio."

Rahere's successor was Thomas, one of the Canons of another Augustinian Priory, that of St. Osyth, in Essex. Richard de Belmeis, the Bishop of London, by whose aid Rahere had obtained from King Henry I land for both Hospital and Priory, had retired, after an attack of hemiplegia, to St. Osyth's, of which he was the founder, in the latter part of the year 1123, and there died January 16th, 1128.

Richard de Belmeis took his territorial name from the town of Belesme, in the district of La Perche on the south-eastern border of Normandy, and when he began life was a follower of Roger of Montgomery, whose wife was the heiress of William Talvas, Lord of Belesme. Soon after the Norman conquest Richard had lands in England and is believed by some historical writers to be the Richard mentioned in Domesday Book as holding the Manor of Meadowley, in Shropshire. Later he had great estates in that district, which was then a separate subordinate realm, and not part of England. Henry I appointed him its ruler, and he became expert in the Welsh politics of the time and strengthened the Norman rule on that border by skilful diplomacy. On May 24th, 1108, he was elected Bishop of London, and was ordained priest at Mortlake, by St. Anselm, then Archbishop of Canterbury, who, on Sunday, July 26th, consecrated him bishop at Pageham, in Sussex. He was a liberal benefactor of his diocese and rebuilt a great part of St. Paul's Cathedral. He also bought the houses which were then crowded close to it, and pulled them down, so that we owe the fresh air and pleasant morning breeze of the open space round St. Paul's to him.

The fine gate of the Priory, still to be seen at St. Osyth's, is in the Perpendicular style, and some centuries later than Bishop Richard; but the Norman part of the village church belongs to his time, and may have been built by him. The Bishop was a friend of both St. Bartholomew's and St. Osyth's, and relations probably continued after his death between the two Priories. Thomas of St. Osyth's was nearly one hundred years old when he died January 17th, 1174, so that he may have known both Richard de Belmeis and Rahere.

The *Book of the Foundation of the Church of St. Bartholomew of London*, which was written between 1174 and 1189, says of him: "This Thomas, as we have proved in common, was good company and of social cheeriness, a man of great eloquence and varied knowledge, versed in the philosophers, and deep in sacred books. He was able to set forth what he wished to say in measured periods, and

it was his custom on every day of solemnity to pour out the words of God to the people."

In 1147 he appointed Adam, mercarius, to the mastership of St. Bartholomew's Hospital in the deed here printed from the copy, made in the reign of Henry VI by John Cok, the redituarius of the Hospital.

Thomas Prior Ecclesie Sancti Bartholomei de London et Conventus ejusdem ecclesie universis matris ecclesie filiis salutem. Universitati vestre notum facimus quod nos Adam mercarium in fraternitatem nostram recepimus ad participandum beneficiis corporalibus et spirituabilibus que in ecclesia nostra fiunt. Qui quoniam laicus est et scimus eum non posse in conventu fratrum clericorum supplere vicem curam domus hospitalis ejus fraterne prudencie commisimus. Hac dispensacione: ut quicumque ille vel alius in terris vel redditibus: vel in quibuscumque domus illius utilitatibus perquisierit omnia integra et illibata domui hospitali finaliter permaneant. In exermis agentem vel ferventiori desiderio volentem habitum ex integro canonicum suscipere parati erimus ex animo eius satisfacere desiderio. Et quia Adam solemniter fecit fidelitatem Ecclesie Sancti Bartholomei juramento astrictus et promisit obedienciam Thome priori et successoribus suis salva convencione de custodia domus hospitalis sicut ista carta testatur. Ideo quo adjuerit in habitu conversionis exteriori: prefate domus curam ad salutem anime sue presentis scripti attestacione firmamus. Ut si ei libera potestas in pauperes orphanos pueros projectos vicinos pauperes infirmos quoslibet et sine hospicio vagantes quantum eis deus inspiraverit: misericordie visceribus habundare. Gratum eciam erit nobis si quempiam de familiaribus suis vel de benefactoribus domus. Ad congregandum secum quandoque suscepit et humanitatis studio eis honeste obsecutus fuerit. Nostre autem autem reservamus auctoritati ne ad victum aut vestitum concinnum et perpetuum. Absque nostro consensu nullum admittat nec extra domum prebendam alicui assidue prebeat. Capellam que fere cum prefata domo fundari cepit damus assensum ut perficiat obstruso tamen hostio versus mercatum equorum. In qua vero scrinnium trimocum collocabitur ad collectam faciendam. Capellam autem que in medio domus ex religionis dispensacione et caritatis intuitu hactenus fuit: complanabit. Ut domus pulcior appareat et adventantibus capacior fiat. Cum autem vite modo fecerit convocatis fratribus ad capitulum ecclesie si quos per suam industriam in domum prefatam attraxerit communi assensu auctoritate nostra unus ex illis dignus et honestus et utilis prefate domui preferetur. Et alii custodes qui per successionem post eum venient eandem curam quam predictus Adam habuit perpetue habuerint. Et quicumque Ade successerit in predictam domus hospitalis custodiam: simili juramento fidelitatis et obediencia solempniter astringetur. Et preterea concedimus Ade et fratribus suis hospitalis ut habeant capellanum alium quam Canonicum virum honestum consilio nostro et fratrum suorum qui

assiduum divinum officium in hospitali predicto ministret. Et fratres domus hospitalis eant in adquisicionem ea que sunt necessaria domui hospitalis sicut hactenus consuetudo fuit. Beneficium quod hactenus de ecclesia scilicet totam panis nostri decimacionem et fratrum reliquias tam panis quam carniem et piscis et potus majori si potest fieri hilaritate quam hactenus et uberius dabimus. Et si, quod absit, domus illa aliquibus eguerit que nobis exuberent vel si predicta domus a quibus habundabit quibus ecclesia nostra indigerit: vicissim sibi absque utriusque gravamine subvenient. Et quicumque capellanus in ecclesia ierit ecclesie nostre et hospitali. propositis sacris fidelitatem faciet. Ut igitur cunctis appareat quo studio quam insolubili caritatis vinculo volumus ut illa domus cum ecclesia nostra societur: et in unitate consistat. Et quod nostra ecclesia et domus predicta unum in Deo simus: Ego thomas prior et conventus ecclesie anathatizamus et excommunicamus omnes qui divisionem et separacionem facere attemptaverunt. Hiis testibus Stephano priore de ecclesia Sancte trinitatis. Roberto canonico suo Priore de Ecclesia Sancte marie de ultra pontem. Adam Canonico suo. Ricardo presbytero de Sancta Mildreda. Ismaele presbytero de Sancto Thoma. Magistro Clemente nepote Willelmi Grand. Willelmo de Coveham. Radulpho Buctel. Roberto de Cornhull. David fratre suo. Petro filio Walteri. Willelmo Magno. Edwardo Albo. Willelmo de Blemunt. Goce Vinitore. Andrea Bukerell. Bricmaro. de Haverhull Willelmo filio suo. Galfrido. filio Sabelline. Willelmo fratre suo. Radulpho Brand. Laurencio fratre suo. Remerdo mercerio. Theobaldo mercerio. Willelmo Faceto. Bartholomeo mercerio. Malgero mercerio. Hugone de Clovilla. Ricardo filio Rameri. Ricardo de Haverhull. Adamo filio Liswini. Beremundo. Johanne Filia Stephane Brande. Gaufrido filio Stephani. Waltero de Clovilla. Rogero de Wittebie.

The chief points of this long charter are that Thomas the Prior and the convent of St. Bartholomew, of London, state that they have received Adam mercarius into their brotherhood, but that as a layman he cannot be admitted into the convent of the clerical brethren, they have committed the hospital to his care. Adam has solemnly professed fidelity to the church of St. Bartholomew, in accordance with the terms of the agreement as to the keeping of the hospital stated in a charter. The prior and convent confirm him in the care of the hospital, and give him authority to do all he can for the needy, for orphans, for outcasts, and for the poor of the district, for every kind of sick person, and for homeless wanderers. But no one is to be admitted to the hospital society and habit without the consent of the Prior and convent. The chapel begun at almost the same time as the hospital is to be maintained, but the entrance on the side of the horse market is to be walled up, where there was an alms box for making collections, and the chapel hitherto allowed in the midst of the hospital is to be pulled down, so as to make a better

appearance and more air. When Adam shall die the brethren of the hospital shall be called to a chapter, and shall elect to the mastership whom they think best of their number. And the wardens who succeed shall have the same charge as Adam, and shall be solemnly bound by an other of fidelity and of obedience to the priory. The hospital may have a chaplain. The brethren may go out to collect things necessary as hitherto the custom has been. The Prior and convent grant the gift they have hitherto granted, that is to say a whole tenth of their bread and the remains, whether of bread, or meat, of fish, and of drink, so that it may make greater cheerfulness than hitherto and fuller. "And if, which God forbid, that house shall want in anything wherein we abound, or if the aforesaid house shall abound in anything in which our church shall be deficient, turn about, they shall help one another without grumbling.

And whatever chaplain shall go into the church of our church and the hospital shall religiously observe what has been set forth. So that to all it may be clear how we desire that that house may be linked without church by an unbroken chain of affection, and may live in unity. And since our church and the aforesaid house are one in God, I, Thomas the Prior, and the convent of our church curse and excommunicate all who shall try to make division and separation between us."

The first four witnesses are Augustinian canons. Holy Trinity, Aldgate, was the oldest foundation of the order in London. The church of Sancta Maria de Ultrapontem was called in English St. Mary Overy, and is now known as St. Saviour's, Southwark. Andrew Buckerel and William Sacetus are together witnesses of a charter of the Dean and Chapter of St. Paul's (there preserved) in the decanate of Hugh de Marinis 1160 to 1181. Hugh de Clorilla is witness of another charter of the same dean, also at St. Paul's. They were well-known citizens.

The brethren following the rule of St. Augustine and tending the sick in such hospitals as St. Bartholomew's were often laymen. A statute of a hospital, or Domus Dei (Hôtel Dieu), dedicated to St. Bartholomew at Troyes, which has been printed by M. Leon Le Grand, says, "Non sint in Domo Dei nisi sacerdotes. Prior sit unus, et unus clericus similiter qui promoren possit ad sacros ordines. Modo suit patres laici decem, sorores non plures, et tales que sint idonee ad exercenda negotia domus et ad serierendum pauperibus."

The chapel near Smithfield (forum equorum) corresponded in situation to the present church of St. Bartholomew the Less. The pulling down of the inner chapel so as to make more room for the patients is the first structural improvement recorded after the original building of the Hospital.

The freedom of election of master granted in this charter was first used in 1166, when Adam's successor, Stephen, was chosen. John Cok records the two appointments.

Adam mercarius primus magister fratrum regularium et laicorum tempore regis Stephani anno XII^o.

Stephanus, procurator fuit primus magister Secularis secundum formam electionis. Anno Henrici Secundi XII^o.

Thomas, the Prior, witnessed a charter at St. Paul's by which Ralph de Langford, Dean from 1142 to 1148, gave to Christina, the head of a convent of Benedictine nuns, the site of her religious house at Merkyate, in Bedfordshire. On this occasion three other heads of houses of Augustinian canons were present: Norman, Prior of Holy Trinity, John, Prior of St. Botolph's, Colchester, and Robert, Prior of Merton, and so was the Abbot of the great Benedictine abbey of St. Alban's.

The Hospital was improved, and the Priory of St. Bartholomew's flourished under the rule of Thomas, so that the canons were increased in number from thirteen to thirty-five.

He was active in improving the condition and increasing the privileges of his priory, and obtained bulls, as is stated

Salutem. Noverit universitatis vestra nos. ecclesiam Sancti Bartholomei Londoniarum et canonicos regulares ibidem deo famulantes sub protectione domini et nostra suscepisse eisdem que confirmasse carte nostre testimonio corroborasse locum illum de Smythfulde in quo ecclesia eorum fabricata est et domum hospitalis ejusdem ecclesie cum terris et tenementis et libertatibus et omnibus rebus ita bene et libere et quiete sicut Rex Henricus primus in perpetuam et liberam elemosinam eundem locum eis donavit et carta sua confirmavit. Preterea confirmamus eis omnes ecclesias et possessiones quas juste et canonice in presentiarum possident aut in futurum juste adipisci poterunt. Has ergo prescriptas possessiones et quas in posterum adipisci juste poterunt prefatis canonicis sancti Bartholomei presentis scripti munimen et sigilli nostri appositione confirmamus precipientes ut has prefatas possessiones et omnes libertates et dignitates quas tempore Regis Henrici primi haberunt in summa pace et quiete possideant ita ut decetero nulli



in the Liber fundationis, augmenting or comprising these from Pope Anastasius IV (1153-54) and from Adrian IV (1154-59), the only English pope.

He obtained a charter from Thomas, of London, the Archbishop slain in 1170, canonised in 1173, and since known as St. Thomas of Canterbury, in which St. Bartholomew's Hospital, as well as the priory, is concerned.

The seven volumes of the memorials, published in the Rolls' series under the title of *Materials for the History of Thomas Becket, Archbishop of Canterbury*, contain more than 800 letters by the Archbishop, addressed to him or concerning his affairs, but the charter now printed from the copy of the original made by the Redituarius of St. Bartholomew's Hospital in the reign of Henry VI is not mentioned in the collection. Its words are:

Thomas dei gratia Cantuarensis Ecclesie humilis Minister omnibus sancte matris ecclesie tam presentibus quam futuris

omnino homini liceat ecclesiam eorum temere perturbare aut dignitates eorum minuire aut possessiones auferre aut ablatas retinere aut eos quibuslibet vexacionibus fatigare. Omnes autem hanc confirmacionem nostram conservantes dei et nostram optineant benedictionem eam vero infirmantes dei et nostram incurrant maledictionem.

The charter states that the Archbishop has taken the church and canons regular under his protection, and hath confirmed to them by his charter the place in Smithfield where their church is built, and the hospital house of the same church, with all rights granted by King Henry I, and confirmed by his charter. The canons are to be secure in any future possessions, and to possess in peace all liberties and privileges which they had in the time of Henry I. None shall disturb them or diminish their dignity or possessions.

"All who keep this our confirmation shall obtain the

blessing of God and our blessing, while those who try to weaken it shall incur the curse of God and our curse."

St. Thomas of Canterbury, was born December 21: 1118, and it is easy at the present day to recognise his birth-place, the residence of Gilbert Becket and Matilda, his wife, in Cheapside, for in the middle of the ground it occupied is the ornamented entrance to Mercers' Hall. One night, when he was a little child (*Materials*, vol. iv) his mother dreamed she saw him uncovered, and scolded the nurse. The nurse said she had wrapped him in a red covering. His mother went to see, and was amazed at the beauty and grandeur of the covering. She began to unfold it with the help of the nurse; it was too big for the room or the rest of the house, and they unfolded it further into Cheapside, and further yet, till they passed the city wall and came "in campum qui dicitur Smethefell." There she heard a voice saying that all England was not wide enough to hold it, "for in this way did the Divine goodness foreshadow to his devout mother the extent of the future greatness and glory of her son."

Thus the early life of St. Thomas is associated with the open space beside which, five years after his birth, our Hospital was built. He was consecrated Archbishop of Canterbury on Trinity Sunday, June 3rd, 1162, by Henry of Blois, Bishop of Winchester, a prelate who knew St. Bartholomew's, for he was a witness of the charter granted to Rahere in 1133 by King Henry I.

When he grew old Henry of Blois liked to remember that he had consecrated Thomas of London and said "My time is near when it may please God to lay me beside my fathers, but with the rest of my body this hand will not rot which ordained as Archbishop that holy martyr of God."

The citizens of London, in common with the whole western world, admired the champion of religion and opponent of arbitrary secular power, and placed the figure of their canonised fellow-citizen on their common seal—"sigillum baronum Londeniarum," the seal of the men of London. On one side was St. Paul with a sword in his hand, with a background of an embattled wall enclosing a city in which stands a standard bearing three lions passant, and with a turreted gate with water before it.

On the reverse was St. Thomas in mitre and pall, seated on a throne in the act of benediction. On his left is a group of kneeling tonsured men, and on his right one of laymen.

The throne has an arch below it, beneath which is a view of London showing St. Paul's Cathedral and several church spires within the city wall and gate.

The saint's figure remained on the seal, with some changes of design, for nearly four centuries.

Thomas of St. Osyth's, the ruler of St. Bartholomew's Hospital from 1144 to 1147, who obtained from Thomas of London, Archbishop of Canterbury, this charter of confirmation and benediction, deserves to be remembered with

gratitude as having added to the usefulness of the Hospital by firmly establishing its power of electing its master, thus strengthening that independence which in later and worse times was an important aid in protecting the Hospital from destruction.

Tumours of the Breast.

By ERNEST H. SHAW.

A Paper read before the Abernethian Society, February 11th, 1904.



R. PRESIDENT AND GENTLEMEN,—When I was asked to read a paper before this Society my choice of a subject instinctively fell on that of Breast Tumours, because for some years past I have been much interested in them, and have had exceptional opportunities of studying both their naked-eye and microscopical aspects.

Definition.—It will make matters clear if I state at the onset the meanings attached to the words "tumour" and "breast" when used by me. In the first place the word *tumour* is employed to denote a swelling of any kind. The swelling may be due to many causes, such as hypertrophy of normal tissue, inflammation, or actual new formation of cells and tissues. I propose to use the term in a more or less general sense, but at the same time to pay especial attention to the last class. By the word *breast* I mean the mammary gland.

Sex.—The great majority of breast tumours occur in the female, and this is not more than one would expect considering the greater development and importance of the mammary glands in women, and the various alterations in structure which the organs undergo in the processes of development, lactation, and subsequent atrophic changes. The male breast is sometimes the seat of tumours of a similar nature to those that occur in female breast, but on account of the great preponderance of cases occurring in the latter sex, the mind at once turns to the female breast when tumours of the breast are mentioned. Unless specially indicated to the contrary my remarks will in all cases apply to the female.

Age.—The age at which a tumour appears in the breast has an important bearing on the kind of tumour which is formed. There are certain periods at which particular varieties of tumour are more commonly met with; for instance, from forty to fifty years carcinoma is most frequently seen; then fibro-adenoma is most common in young women between the ages of eighteen and twenty-five years. But this is only a rough general rule, and it has many exceptions, for a carcinoma may develop at a much earlier age, and a fibro-adenoma may appear at a later year than that mentioned.

The earliest example of carcinoma of the breast I have heard of occurred in a woman of nineteen years. Dr. Williamson saw the case and removed the tumour.

Side.—In a series of breast tumours examined by Dr. Morley Fletcher and myself,* out of 109 tumours sixty-one occurred in the right breast. This represented 109 out of a total of 113 cases which were operated upon in St. Bartholomew's Hospital during the year 1900. It includes many varieties of tumours, such as carcinoma, fibro-adenoma, etc. Of 65 cases of carcinoma 38 were in the right breast and 27 in the left.

I have no comments to make on this point, but give the figures as a matter of interest only.

Primary and secondary growths.—By far the greater number of breast tumours are primary ones in that organ. Secondary growths do, however, occur, both carcinoma and sarcoma. Carcinoma occurs fairly frequently, and, as a rule, secondary to a similar growth in the opposite breast. I have seen half a dozen cases within the last three years. When this happens it often means that there are secondary growths in other parts of the body as well.

Sarcoma may occur as a secondary growth following a primary growth elsewhere. This is rather rare. A girl aged twelve died in this hospital last year with secondary round-celled sarcoma in both breasts, the primary growth occurring in the thorax. Dr. Andrews kindly gave me a piece of "green sarcoma" or chloroma which

* *St. Bartholomew's Hospital Reports*, vol. xxxvii, pp. 295—308.

formed in the breast of a young girl secondary to a growth originating in the orbit.

There is a specimen of secondary melanotic sarcoma of the breast in our Museum (Series XLIX, No. 3186).

Multiple growths.—The occurrence of more than one tumour in the same breast at the same time is not very uncommon. Various combinations may occur, and I cannot do better than give you the cases that turned up at Bart.'s in 1900. In *two* cases there were *two* separate tumours; the first breast contained two fibro-adenomas, and the second one a carcinoma and a fibro-adenoma. In *three* cases there were *three* separate tumours in the same breast. The *first* contained three fibro-adenomata; the *second* contained two separate nodules of carcinoma and one fibro-adenoma; and in the *third* breast were a sarcoma, fibro-adenoma, and a nearly pure fibroma.

There is a specimen in our Museum (Series XLIX, No. 3156) which contains a large number of small fibro-adenomata.

Classification of tumours.—Tumours of the breast are of such a varied nature that it is almost impossible to classify them with any degree of accuracy. They can, however, be grouped in a more or less rough manner suitable for our present purposes. There are various methods of classifying these tumours; for instance, there is a clinical classification which divides them up into *innocent* and *malignant* tumours, but this is an unsatisfactory method, and does not give us a clear idea as to the microscopical structure of the growths. A pathological classification based on the histological characters is a much better one, and if combined with it one uses such clinical terms as *innocent* and *malignant* to denote the behaviour of the tumours when present in the living body, then its value is still further increased. The terms *innocent* and *malignant* must, however, occupy a secondary place. I have drawn up a scheme of classification on these lines, which I will submit to your judgment and criticism. Please do not anticipate a list of new names and terms to add to the enormous number already in use; my list contains no others than the old familiar ones arranged in a slightly different manner.

Development and histology.—Before giving in detail the classification I intend to use I wish to remind you of a few simple facts in connection with the development and histology of the mammary gland. You will remember that the glandular part of the organ originates as a downgrowth of the rete mucosum of the epidermis in the embryo; from this downgrowth of epithelial cells lateral offshoots arise. Later on the central parts of these branching masses become hollowed out, thus forming tubes. These tubes open at the site of the original downgrowth by fifteen to twenty openings. The nipple is formed at this spot by the growth of connective tissue and much unstriated muscle, and the tubes are carried up in it to open at its summit. The glandular part of the breast at birth then consists of a number of tubes passing down through the nipple, and running in a radial manner between the two layers of the superficial fascia. The tubes and their branches are supported by well-formed fibrous tissue containing bloodvessels, lymphatics, and nerves. Each tube with its prolongation and branches, together with its supporting framework of connective tissue, forms a lobule, each lobule being complete in itself. A varying amount of fat covers and dips down between all the lobules. About puberty there is an active growth of glandular tissue; new outgrowths of epithelial cells arise from the existing tubules, these outgrowths being arranged in clusters about the terminal tubules; by this means the fully formed acini, as seen in the adult breast, is arrived at.

The *epithelium* differs in character at various points. At the orifice of the duct it is flattened, being continuous with the squamous epithelium covering the nipple. Tracing it downwards it is next columnar in shape, then short columnar, and, finally, cubical in the terminal parts. This change in form is gradual. There is a second layer of small round cells lying between the above layer and the basement membrane. Outside the basement membrane are bloodvessels and lymphatics. The supporting framework of fibrous tissue surrounds the above structures, and far exceeds in quantity the glandular elements.

I will content myself with this brief outline of the histological structures met with in the breast, which, however, is necessary in order to make clear my remarks on the site of origin of the various tumours seen in the gland. In short, the tissues entering into the formation of the breast are—

1, *epithelial*; 2, *fibrous*; 3, *fatty*; 4, *bloodvessels*; 5, *lymphatic vessels*; 6, *nerves*.

From these varieties of tissues tumours may possibly arise, resulting in the formation of adenomata, fibromata, and so on.

Of these the first two are the most important. So long as these structures grow in their proper proportion to each other and at a normal rate the breast retains its usual characters. But if one of them develops at an unusual rate, and to a greater degree than the others, then the normal order is disturbed. For instance, the epithelial element may take on excessive growth, and form a tumour such as an adenoma or carcinoma. But it is unusual for one tissue alone to grow in excess in this manner; some one or other of the other elements usually grow in excess also. Again, all the tissues may grow with greater vigour and abundance, leading to the formation of a gland of abnormal size, a condition known as hypertrophy. Cases of hypertrophy are recorded in which the breast has reached enormous size (R.C.S. Museum a specimen weighing 13 lbs. Sheild records cases of hypertrophy weighing 20 lbs. and 30 lbs.)

Taking the various tissues in order, the following variations in growth may occur:

1. **Epithelial.**—The epithelial cells may grow in an unusual manner at any point in the length of a tube or in the acini. They may grow—

- (A) Outwards, that is away from the lumen; or
- (B) Inwards, that is into the lumen.

In the former case the cells may in the course of their growth either (i) imitate closely the normal characters of the gland, *e.g.* form new acini and ducts, accompanied by a supporting framework of new connective tissue and the necessary blood-vessels, nerves, and lymphatics (adenoma and fibro-adenoma); or (ii) on the other hand, the cells may grow out in a disorderly manner and penetrate first the basement membrane and then the other tissues, infiltrating and destroying everything that lies in their way,—gland tissue, fat, muscle, and even bone being all liable to be affected. This type of growth is that known as carcinoma.

In the case of the cells which grow inwards, they may behave in the same manner; they may grow either in an orderly or disorderly fashion, forming in the first case a papillomatous mass projecting into the lumen of a duct, which becomes dilated (duct papilloma), and in the second case forming masses of cells which at first are confined to the lumen of a duct, and later on break through the wall and invade the surrounding tissues (as in duct carcinoma).

In all these four variations there is a growth of connective tissue sooner or later and an increase in blood-vessels.

2. **Fibrous tissue.**—From this tissue two varieties of new formation may occur, forming, on the one hand, the tumours fibroma and sarcoma, and on the other, a hypertrophy such as is met with in chronic inflammation.

3. **Fatty tissue.**—The growth of fatty tissue leading to the formation of tumours only occasionally occurs.

4. **Blood-vessels** may increase to such an extent as to form a definite tumour, but their importance lies in their connection with the epithelial and connective-tissue tumours. In most tumours there is an increase in the number of blood-vessels. The position of the blood-vessels with regard to the cells forms an important guide to the proper diagnosis between the two great classes of tumours, viz. carcinoma and sarcoma.

5. **Lymphatic vessels.**—Dilatation of lymphatic spaces giving rise to cysts is said to occur, but it is very doubtful; this will be referred to under cysts. Lymphatics play an important part in the dissemination of malignant growths, especially the carcinomata.

6. **Nerves.**—In cases of carcinoma large nerves are often seen in the growth, and it is most probable that these represent pre-existing nerves which have been involved in the tumour.

In eleven out of a total of sixty-five cases of carcinoma nerve-trunks of considerable size were involved in the growth, and yet in only three of these was pain complained of by the patients.

Whether nerves of new formation are present in tumours is a matter of debate. I have not seen any record of a tumour composed of nerves.

Having sketched thus briefly the variations which may occur in the growth of the breast tissues I will now proceed with the classification.

TUMOURS OF THE BREAST.

I.—Epithelial tissue.

(Innocent) { (a) Adenoma.

(b) Papilloma (duct papilloma).

(Malignant) (a) Carcinoma { i. round- (or spheroidal-) celled.
ii. columnar-celled (including duct carcinoma).
iii. mixed-celled (degeneration form = colloid carcinoma).

II.—Connective tissue.

- (Innocent) {
 (a) Fibroma.
 (b) Myxoma.
 (c) Lipoma.
 (d) Chondroma.
 (e) Osteoma.
 (f) Angioma.

- (Malignant) (a) Sarcoma {
 i. round-celled.
 ii. spindle-celled.
 iii. mixed-celled.
 iv. giant-celled.
 v. fibro-sarcoma, myxo-sarcoma.

III.—Epithelial plus connective tissue.

- (Innocent) (a) Adeno-fibroma {
 i. tubular.
 ii. acinous.
 iii. intra-cystic.
 (Malignant) (a) Adeno-sarcoma (so-called sero-cystic sarcoma).

IV.—Cysts.

- (a) Retention {
 i. serous.
 ii. galactoele.
 (b) With intra-cystic growths {
 i. papilloma (duct papilloma).
 ii. carcinoma.
 iii. fibroma (intra-cystic adeno-fibroma).
 iv. sarcoma (intra-cystic adeno-sarcoma).
 (c) Breaking down of new growths {
 i. carcinoma.
 ii. sarcoma.
 (d) Parasitic i. hydatid.

V.—Inflammatory.

- (a) Chronic mastitis.
 (b) Abscess.
 (c) Tubercle.
 (d) Syphilis.
 (e) Actinomycosis.

From the above list it will be seen that there are five groups. The first two contain the epithelial and connective-tissue tumours. But some tumours contain both of these tissues present in such proportions as to render it necessary to form a third group. Group IV contains all the cysts; some of these have already been placed in the first three groups, but in order to make the list of cysts a complete one I have placed them here also. The last group is a very important one; it contains a class of breast tumours which lead to endless discussions both before removal and in many instances after removal.

CHARACTERISTICS OF THE VARIOUS CLASSES OF TUMOURS (I—V).

CLASS I. *Epithelial tumours*.—This class of tumour is composed essentially of epithelial cells.

Taking first the innocent tumours. (An innocent tumour may be defined as one which grows more or less slowly, does not reproduce itself in neighbouring glands or distant organs, and when removed does not recur.) The first is the *Adenoma*. A pure adenoma of the breast is rare; there is one example in the Museum (No. 3159A). It is a small, nodular, encapsuled tumour, which microscopically is composed of closely packed groups of epithelial cells, small and rounded, with a basement membrane, and supported by a delicate meshwork of fibrous tissue.

Papilloma, commonly called *duct papilloma*.—As a rule, they occur as small cystic tumours close to the base of the nipple. On cutting into the cyst, the wall of which is usually thin, a quantity of blood-stained fluid escapes, and a soft reddish mass is found projecting into its cavity from the wall. *Microscopically* the tumour is composed of a number of delicate processes of loose fibrous tissue containing large, thin-walled blood-vessels, and covered by a layer of columnar-epithelial cells; there may be more than one layer of cells.

There is another form of tumour which to the naked eye is exactly similar to the above, but differs from it microscopically in that it is composed of *glands* lined by columnar cells. The glands are separated by a loose fibrous meshwork, and in many places are much dilated; so much dilated do these glands become in other parts of the specimen that the intervening fibrous walls are broken through; the broken ends then hang freely into the enlarged spaces thus formed, and resemble closely the papillary processes seen in the first variety. This second form is really an *adenoma*, and

corresponds to the pedunculated adenomatous growths found in the rectum.

Both of these growths are interesting, for clinically they very often bleed, and a discharge of blood or blood-stained fluid escapes from the nipple. This points strongly to the probability of their origin being the wall of a lactiferous duct. They are often multiple. I have sections of a breast in which there were at least three.

The probability of there being other smaller masses, too small to be felt by palpation, must be borne in mind when removing a growth of this nature. A supposed recurrence after local removal may not be anything more than the continued growth of one of these tiny papillomata. On the other hand, the possibility of these growths becoming malignant must also be remembered. This will be again referred to when considering duct cancer.

Malignant epithelial tumours.—(A malignant tumour is one which is not, as a rule, encapsuled, spreads to and destroys adjacent tissues, reproduces itself in neighbouring glands and distant organs, and after removal is liable to recur.) Carcinoma is the name applied to this group. The tumour is one composed essentially of epithelial cells. Carcinoma occurs in many forms, sometimes hard and sometimes soft, and with many intermediate varieties of consistency; but in all of them the one characteristic feature is that of an unencapsuled mass of new formation, infiltrating the surrounding structures, which are slowly but surely destroyed. This is well illustrated at the edge of the growth when seen in section, for where it is infiltrating the fat, small islets of fat can be made out surrounded by the cells of the tumour which have engulfed them, as it were, preparatory to completely destroying them. This reminds one of the amoeba and its method of obtaining food by means of its pseudopodia. The destructive character of carcinoma is also very well seen when it reaches the skin, for here the cells of the tumour first invade the skin, gradually destroying it, and then finally protrude from the surface as a mass of tissue, which bleeds easily and gives off much foul-smelling discharge. The cut surface of a carcinoma varies a great deal in appearance. It is impossible in a short paper like this to give you an account of them; I will just read one or two descriptions which I wrote from actual fresh specimens.

CASE 1.—Removed from a woman *æt* 62; duration one year. On section is seen a small rounded mass of hard, whitish growth, with concave surface, and presenting numerous white streaks and dots. It is situated well below the skin, about two inches from the nipple.

CASE 2.—Woman *æt* 46; duration seven months. On section is seen a large mass of new growth ($3\frac{1}{2}$ in. \times 2 in.); it lies immediately beneath the skin, and reaches to the deep fascia; the pectoral muscle is adherent at one spot. One end of the tumour is attached to the nipple, which is drawn down, and contains many dilated ducts, and from there it extends outwards for about three and a half inches. About a third of the growth (that nearest the nipple) is hard and white in its central part, whilst the periphery and remaining two thirds are softer, and at one spot has broken down and forms a large cyst about one and a half inches in diameter.

CASE 3.—Woman *æt* 38; seven months' duration. On section a short distance from the nipple there is a mass of malignant growth (14 in. \times 1 in); it is rather soft in places and inclined to "bulge." Many yellowish streaks and dots are scattered over the cut surface. A small piece of muscle is adherent to the under surface of the growth.

The hard growths very often show these points and streaks of yellow material, which represent masses of cells, most of which are necrotic.

The concave surface on section of a hard carcinoma is very typical, and contrasts with the "bulging" surface of the softer variety. The dilatation of the main duct at the base of the nipple and the retraction of the latter, caused by the contraction of fibrous tissue of the growth, is also a common feature. In the softer forms of carcinoma there is often a tendency for the growth to break down and form degeneration cysts; hæmorrhage sometimes occurs in this variety.

Microscopically.—The type of a carcinoma is as follows:—(a) *Epithelial cells* lying in groups in spaces formed by (b) *Bands* of fibrous or fibro-cellular tissue.

The cells may be in groups of two, ten, a hundred, or more; they may be massed together in round, oval or irregular groups, in single file. They may be, in shape, round or spheroidal, columnar, cubical, or a mixture of all these; they may also be arranged in the form of tubes. In the larger masses of cells it is common to find much fatty and necrotic material in the centre. The matrix may be very abundant dense fibrous tissue, with scarcely any connective-

tissue cells; it may be fibrous and contain many of these cells; it may be in the form of scanty fibro-cellular tissue, and in some instances composed of connective-tissue cells only.

The blood-vessels run in the stroma, and do not penetrate into the masses of epithelial cells. At the growing edge there is almost always to be seen small round-celled infiltration in advance of the cancer cells.

As a rough guide one may say that in a hard carcinoma the cells are smaller than in a soft one. I have divided the carcinomata up into—(a) round or spheroidal; (b) columnar; (c) mixed-celled. This division can be followed roughly in most cases. The round cells are found sometimes small and at others large; they are very often distorted, however, by mutual pressure; this happens when there is much fibrous tissue matrix. The pure columnar-celled variety is not very often seen apart from duct carcinoma, and I think the mixed round- and columnar-celled form is the most common of the three. The cells in the columnar-celled carcinoma are, as a rule, arranged in the form of tubes, with a definite lumen.

Duct carcinoma.—This is a term which has been, and is now, used to describe several distinct varieties of tumours. It is a term applied by some to a tumour composed mainly of columnar cells, by others to what I have described as a duct papilloma. Those who use it for the columnar-celled variety are no doubt right in a sense, for those growths may be said to originate in ducts; but it is a very unsatisfactory term, and when used at all it is better to confine it to those tumours in which distinct papillary ingrowths in the dilated ducts exist, together with an extension of epithelial cells into the surrounding tissue.

Duct carcinoma varies in appearance; in some cases it is soft, with hæmorrhages and cysts, and in others it is hard. They are often multiple. In a specimen which I examined the following description was written:—"A small, hard growth, with a few soft spots scattered over its cut surface; it was adherent to the deep fascia.

Microscopically.—The tumour presents two varieties of growth intermingled; one a distinct papillary ingrowth within small cysts, and the other an infiltrating columnar-celled carcinoma. This tumour also showed in places the condition known as carcinoma myxomatodes, in which, by degeneration, small spherical spaces are formed in the cell masses, giving a vacuolated appearance to the growth. In this case there was a return of the disease in the scar some months later, but the recurrent growth was a spheroidal-celled carcinoma, and did not contain any papillomatous growth. Was this a case in which there was first a papilloma leading to carcinoma, which returned in a more virulent form?

Sheild states "that duct cancer starts as a duct papilloma, which eventually breaks through the lining membrane of the duct as an infective growth."

Colloid carcinoma.—This is a degenerate form arising from any of the preceding varieties. The cells and parts of the stroma swell up and disappear in part, so that the tissues appear to the naked eye like a mass of jelly. The growths involve the lymphatic gland and distant organs, and are therefore malignant. The course of the disease is rather slower than in the ordinary spheroidal or mixed-celled varieties.

Microscopically there are seen groups of cells, most often round, lying in a delicate fibrillar structure, which represents the colloid material coagulated by the hardening reagents; outside this there is usually a fibrous stroma with connective-tissue cells, parts of which have usually undergone this degeneration.

CLASS II. Connective-tissue tumours.—These are divided into innocent and malignant groups.

Fibroma without any gland tissue is rare. Some authors describe tumours as fibromata in which there is a fair amount of gland-tissue, but these really ought to be classed as fibro-adenomata. I have a specimen of almost pure fibroma, about half an inch in diameter, which occurred in conjunction with an ordinary fibro-adenoma and a sarcomatous growth. There is a specimen in the museum, No. 3161, weighing seven pounds, which was growing for thirteen years. It was removed, and the patient remained free from any recurrence.

Lipoma is a very rare tumour; most cases described have occurred really in the fatty tissue over or about the breast, and are called para-mammary lipomata. There is a specimen in the Museum (No. 3160A).

Chondroma and osteoma.—These are extremely rare tumours, and according to Sheild it is very doubtful if they ever occur as primary tumours in the breast. In all the cases which he had seen recorded the presence of bone or calcareous material has been accompanied by other tumour formation, such as carcinoma or sarcoma. There

is a specimen of chondroma of the mammary gland of a bitch in our museum (No. 3160).

Angioma.—Sheild mentions several cases of angioma implicating the breast, but he has never met with a case where the skin was not primarily affected.

Myxoma.—Myxomatous tissue most often occurs in combination with fibrous or sarcomatous tissues. I have seen one tumour which was myxomatous throughout.

Sarcoma of the breast arises in two different ways. First, it originates in a tumour which has all the characters of an intracystic adeno-fibroma, by excessive proliferation of the cells in the connective-tissue ingrowths. This variety will be discussed when dealing with adeno-sarcoma. Secondly, a sarcoma may develop quite independently of any glandular formation. Such a tumour forms a solid mass of new growth, which may have an imperfect capsule at first, but sooner or later it breaks through this and infiltrates the surrounding structures. Cysts may form by the breaking down of parts of the tumour, and hæmorrhage is likely to occur in the softer varieties.

Microscopically the soft growths are most often of the round-celled variety. The firmer growths are usually composed of spindle cells or a mixture of round and spindle cells. Giant cells are also met with. When there is a good deal of fibrous matrix the tumour is called a fibro-sarcoma. In the same way chondro-sarcoma or osteo-sarcoma are formed when these tissues are present in combination.

Sarcoma of the breast may affect the lymphatic glands and become disseminated, but it is said that this does not often occur.

CLASS III. Epithelial plus connective tissue.—This group includes the well-known adeno-fibroma and another tumour known as adeno-sarcoma.

Taking first the adeno-fibroma (or fibro-adenoma). This tumour occurs in many forms, and in size varies from that of a pea to a football. They may be divided into three varieties, *i. e.* 1, tubular; 2, acinous; and 3, intra-cystic. In the *tubular* form the gland tissue is arranged in the form of tubes, each tube being formed of a ring of cubical or short columnar cells lying on a basement membrane. In some instances there is a second layer of small round cells below the cubical or columnar cells. The *acinous*, which is the commoner variety, shows an imperfect imitation of gland acini with or without attempts at duct formation. The acini are arranged in irregular bunches, and separated by a varying amount of fibrous tissue. The gland cells are small and rounded in the collapsed parts, and cubical or flattened in the parts which are slightly distended with secretion. A basement membrane is present. In some cases the fibrous tissue immediately surrounding the glandular elements is delicate and swollen, forming concentric layers with but few cells. This stains rather differently from the ordinary fibrous tissue further out, taking on a blue colour with hæmatein. This variety is called *periacinous* by Zeigler.

The *intra-cystic* fibro-adenoma is the one which causes the most confusion in the minds of those who are studying tumours of the breast for the first time. This confusion results from the large number of names used to describe this condition. Microscopically it consists of gland tissue in the form either of cystic spaces or clefts, with a lining of one or more layers of cells. The cells may be round and in several layers, or cubical or columnar and in one layer. Projecting into the cysts are polypoid masses of connective tissue, either in the form of hard fibrous masses with few cells, or a more cellular form. Each of these projections is covered by the epithelium lining the cysts. In addition to these well-marked intra-cystic masses there is usually also a good proportion of simple tubes or acini as occur in the first two varieties. It is doubtful whether fat is ever present. I have described the microscopical appearances of these tumours first in order to make clear the reasons for separating them into the three groups. It is not always easy to say from the naked-eye examination of a tumour into which class it should be placed, and, in fact, this is impossible in the first two cases. It is easy, however, to separate the third form from the other two. An ordinary small adeno-fibroma is an encapsulated tumour of round, oval, or irregular shape, which can easily be shelled out from the surrounding tissues. It is hard or firm in consistency, and feels fibrous on cutting into it with a knife. Its cut surface is white and moist, and becomes convex through the shrinking of the fibrous capsule. It may be smooth and even, or separated into lobes by fibrous bands. The simple round or oval tumour with an even surface on section is typical of the tubular and acinous varieties. The irregular tumour with separation into lobes is more likely to be of the intra-cystic type, and if it shows slits and tiny polypoid

masses of fibrous or myxomatous substance which can be turned out from cystic spaces with a needle or point of a knife, then it should be classed as an intra-cystic fibro-adenoma. Most commonly these tumours are about the size of a walnut. The tubular and acinous forms are met with now and then of much larger size, and they are as a rule fairly smooth on the surface. They all contain very little blood, and the cut surface is white, which turns to pale pink after a short time owing to blood being squeezed out by contraction of the fibrous capsule.

The intra-cystic fibro-adenoma is common in its small form, but in the larger type it is not so often seen. It is this larger type of tumour which has received so many names. A few of these are—sero-cystic tumour, cystic fibro-adenoma, proliferous cysts, cysto-adenoma, adenocoele, adenomatous tumour, glandular proliferous cysts of Paget, papilliferous cystoma, intra-canalicular fibroma.

The essential points to be made out in these growths are:

1. Cysts which vary in size from an eighth of an inch to two or three inches in diameter; they may be round, irregular, and slit-like in shape.

2. Solid growths of fibrous, myxomatous, or fibro-cellular tissue lying in the cysts and hanging by a stalk from the cyst wall.

The cysts may also contain fluid in addition to the solid growth. The growths hanging into the cysts have arisen from the connective tissue outside, and have pushed the lining epithelium in front of them in the course of their growth and have not come through it.

These tumours may reach a very large size, and by their weight and distension the skin over the tumour may give way, allowing the tumour to protrude in places. A large tumour of this nature was removed by Mr. D'Arcy Power in December last. It weighed nearly 4 lbs., and had almost burst through the skin, which was greatly thinned over it.

The intra-cystic fibro-adenomata are very liable to take on a malignant course, *i.e.* become sarcomatous; there are several specimens in the Museum showing this condition. The close relationship between the various forms of fibro-adenoma should be borne in mind when considering the question of their removal. Many of the smaller tumours are of the intra-cystic type, and are but early stages in the formation of the much larger forms.

Carcinoma of a fibro-adenoma is a rare event; there is one specimen in our Museum.

Adeno-sarcoma.—An apparently innocent fibro-adenoma of the intra-cystic type may suddenly begin to grow more rapidly, and then after removal is found to be malignant. It is sometimes difficult to decide even after removal whether a tumour of this description is malignant or not, but it is generally fairly easy, because in the case of such a tumour there will be found a more solid part in which no cysts or polypoid masses can be seen. For instance, in one part of the tumour there will be seen cysts with intra-cystic growths of ordinary fibrous or fibro-myxomatous nature, whilst in another part the cysts have disappeared and a solid, softish mass is found; it may be mottled with extravasated blood. It will be this part in which the malignant nature of the growth will be discovered on microscopical examination. There will be found a mass of round or spindle cells or a combination of the two, or may be giant cells. Then in the other part described first there will be found gland tissue in addition.

The malignancy of these tumours is *not* due to the glandular element, but to the connective tissue element. Cornil and Ranvier (Vol. I, p. 139) have stated this very clearly; they say, "When sarcoma of the breast containing glandular *cysts-de-sac* is removed surgically and recurs the new tumour will no longer contain glandular elements, or a very small number. If the tumour becomes generalised in other organs the secondary growths *never* have *cysts-de-sac*." They also state that in sarcoma of the breast or other organs adipose tissue is never found in the midst of the morbid mass, thus differing from carcinoma in which islets of fat are often seen.

The term "Brodie's disease" has been applied up to quite recently to all the larger tumours of the intra-cystic type, thus giving one the impression that they were all malignant tumours. Quite a small proportion of them, however, are found malignant, most of the tumours being adeno-fibromata.

CLASS IV. *Cysts.*—These occur in great variety, the most common form being that due to retention of secretory products of gland cells, either in the acini or ducts, the retention being caused by some obstruction in the course of a duct. They are sometimes also called involution cysts from the fact that they are most often found in the breasts of women who are nearing the climacteric, and whose

breasts are in a condition of involution. These cysts are very commonly multiple. Usually there is one, perhaps two, larger cysts, and a number of other smaller cysts in the breast tissue around. They contain a thin albuminous fluid, sometimes clear and of a yellowish-brown colour, and at others thicker and perhaps blood stained. The walls of the cysts are, as a rule, thin and almost translucent, but they may be thick and opaque.

I have examined microscopic sections of a large number of these cysts, and have found cystic changes in the surrounding breast tissue in practically every specimen, and further, there is always some fibrosis with in most cases a certain amount of round-celled infiltration. These appearances point to the existence of an inflammatory affection of the breast, and this is further supported by the fact that in a large number of these cases there is proliferation of the epithelium lining some of the cysts. The condition is therefore one of mastitis and of a chronic form, complicated by cysts. The form of kidney known as granular kidney appears to me to be a similar affection, for in this there is fibrosis with cysts and round-celled infiltration as in the breast. Some of the larger cysts are called serous cysts, and are said to originate in the lymphatic spaces in the connective tissue. Mr. Bowlby is of an opinion that all these cysts are formed by dilatation of acini or ducts, the lining epithelium, which in the small cysts is columnar or cubical, being gradually flattened as the cyst enlarges, until finally it becomes hardly recognisable. My own experience fully confirms this. A breast may be completely riddled with cysts of this description.

As these cysts are so closely associated with chronic mastitis it will be as well to proceed with this subject.

Inflammatory tumours.—(a) Chronic mastitis. The naked-eye appearance on section of a mass of this nature is very much like that of the ordinary breast; it feels firmer than the normal breast. It differs from hard carcinoma, from which it has to be separated, in that the latter has a denser appearance, and its cut surface is generally concave. The density is better appreciated by touch; a mass of indurated breast tissue feels hard, but gives way under the fingers—slips about as it were. A mass of carcinoma feels hard, and does not slip about. Then of course there is the peculiar sensation felt on cutting through a carcinoma that has been compared to cutting through an unripe pear. This is not felt on cutting into an indurated breast, which, however, is more difficult to cut through because it rolls about under the knife.

Microscopically.—In addition to the appearances seen as described above under cysts, for these are very often present, others are met with which present a very varied picture.

Mr. F. T. Paul, of Liverpool, in a paper entitled "Chronic Mastitis and its Relation to Tumour Formation," which he read before the Pathological Society of London,* has described the changes seen in this condition. He states that the earlier stage is generally limited to connective-tissue changes of a simple character, and the later stage accompanied by marked changes in the epithelial structures. The periacinous tissue is infiltrated with small round cells, and is swollen. Next there is an overgrowth of gland acini and formation of microscopic cysts. The epithelial changes are more variable than those in the connective tissue. There are three chief forms of epithelial overgrowth:

1. In the microscopic cysts lined with elongated cells; the cells proliferate and give rise to intra-cystic growths; the growths are present in sizes varying from the smallest vegetation to branching dendritic growths. Mr. Paul adds that he has never seen any clear evidence that these histologically beautiful long-celled vegetations ever pass over to a carcinomatous formation.

2. Intra-cystic growths with short darkly staining epithelium, and more substantial connective-tissue stalks. This form is very common, and is liable to take on infiltrating characters. Carcinoma arising in this way is usually of the columnar-celled variety and cystic (*duct carcinoma*). In its simple form this variety is of the same nature, and is only the microscopic form of the intra-cystic or *duct papilloma*.

3. Intra-acinous proliferation. In this variety there is enlargement with overgrowth of the acini. The proliferation of the lining epithelium may affect only islets of breast tissue or sometimes large tracts. There is a gland-like pattern with columnar cells outside, and the rounded cells fill the centre.

The intra-acinous proliferation of cells and growths in minute cysts seen in all these three varieties occurring in breasts which are inflamed constitute a source of danger which to my mind is not a light one. I consider a breast in which this condition exists to be

* *Trans. Path. Soc.*, vol. lii, p. 30.

in what one might describe as that of unstable equilibrium, and the danger of continued overgrowth of the epithelium leading to the invasion of the surrounding breast tissue, and thus constituting a definite malignant growth should be borne in mind. Most breasts affected with carcinoma present the above appearances in the parts away from the main growth.

Cysts with intra-cystic growth.—Most of these have already been mentioned under the headings of duct papilloma, fibro-adenoma, and sarcoma. There is an important group, however, which occurs, and which I have placed under the subheading carcinoma. Occasionally one sees a smooth-walled cyst with thick walls, and into it projects a small, rather firm, irregular nodule; there may be more than one nodule. The specimen might perhaps be taken for a duct papilloma or an intra-cystic fibro-adenoma, but the latter very seldom is seen in this form. On microscopic examination the nodule is found to be carcinoma, and the wall at this point with a certain amount of the surrounding breast substance will also be found invaded. I look upon these tumours as secondary formation of carcinoma in a fibro-cystic breast, my reason being that in a number of cases, about eight, in which I have cut sections through the wall of apparently simple cysts of the breast I have found carcinoma just beginning in the outer part of the wall, or rather in the glandular tissue just outside the wall.

These cysts are quite distinct from the next class, in which part of a malignant growth itself softens and breaks down, forming a cavity in which there is a quantity of fluid and softened pulp. This may occur either in carcinoma or sarcoma, and may be called a degeneration cyst. There is sometimes hæmorrhage into these cysts.

Hydatid cysts of the breast are rare, and are usually found in adult females.

Inflammatory tumours.—Chronic mastitis has already been dealt with, and I propose to say only a few words about the remaining groups in this class.

Abscess.—A simple acute abscess of the breast of course is common enough, but sometimes a malignant growth suppurates; there are two specimens in the Museum showing suppuration in carcinomata.

Tubercle causes enlargement of the breast, usually localised, but sometimes diffuse. On section the breast is hard and presents numerous small grey or whitish patches scattered in its substance; in some of these patches there is a central lumen. Caseation is rarely seen, but tiny suppurating areas are sometimes present. A large abscess may be formed, as in a specimen in the Museum. Microscopically the tuberculous patches are seen to contain many large and well-marked giant cells and to be situated usually in the walls of the ducts. There is much inflammation of the breast tissue. The lymphatic glands are sometimes affected. I have seen a breast affected both with tubercle and carcinoma.

Syphilis may affect the breast in the form of a diffuse mastitis or gummata. As these are usually cured without having resort to operation, one does not often have an opportunity of examining them. I have seen one breast in which there was a hard round mass about an inch and a half in diameter, very fibrous, concave on section, and fading off into the surrounding breast tissue. The appearances were those of a hard carcinoma, and for this reason the breast was removed. Microscopically, however, there was no sign of carcinoma, the mass was composed of inflammatory fibrous tissue, the central part did not stain well, and was therefore necrotic, and at the periphery were many arteries showing typical syphilitic endarteritis; in the more central part of the nodule were several arteries completely blocked. The woman was quite well two years afterwards.

Actinomycosis affects the breast in the form of suppurating sinuses containing the characteristic small yellow granules. It is rare. I have sections of the breast of a young woman who died in St. Bart.'s a few months ago with actinomycosis of the thorax with extension through to the breast region.

There are many points with regard to secondary changes in tumours resulting from or independent of treatment, their rate of growth, glandular affection, and a host of other matters which one would like to go into, but with these it is impossible to deal in a short paper of this kind. I have tried, however, to indicate shortly and, I hope, with a certain amount of clearness the chief points to be borne in mind in relation to breast tumours, and that more especially from a student's point of view, for to this order I have the honour to belong.

The Clubs.

STUDENTS' UNION.

The third meeting of the Council was held on Friday, March 25th, at 4.30 p.m., Dr. Herringham (the President) in the Chair.

On the recommendation of the Publication Committee Mr. Hogarth was elected Editor of the JOURNAL.

Mr. Trist was elected representative of the Union Council on the Publication Committee.

An unofficial report was received from Dr. Andrewes on the ventilation of the Abernethian and Smoking Rooms.

In the course of his report Dr. Andrewes says, "My unofficial opinion is that no satisfactory means of ventilating the Abernethian Room by *natural methods* can be found. Something might be done by providing air inlets near the floor, but the incoming air would have to be warmed by hot water coils or it would be very cold in winter. In addition to this, mechanical extraction by an electric fan would be required to keep the air really pure. A joint extraction shaft from the Abernethian and Smoking Rooms could be arranged with the fan somewhere on the stairs going down to the Cloak Room, so that any possible disturbance to the deliberations of the Abernethian Society from its noise would be done away with."

The report was discussed at length, and it was decided that it would be advisable to postpone the question for the present on account of the question of expense.

It was agreed that a Suggestion Book be placed in the Abernethian Room.

A suggestion from Mr. Maples, that a scientific workroom be provided for the use of students desiring to undertake research work, was discussed.

The need for dispensing classes for students was brought before the meeting. The President announced that arrangements had been made for such classes to be held.

The question of the proposed club accommodation for students was discussed. The Council was informed that the subject was receiving the attention of the Medical School Committee, and some information was obtained on the matter, which it is not desirable to make public at present.

A committee of the Junior Staff are consulting with the Warden upon the question of catering for students, and hope, as soon as it can be made financially profitable, to transfer the catering for students to the care of the Union.

A letter was read from Mr. Foster on the subject of students' entertainments (dances, smoking concerts, etc.), and it was decided that the Union Council should arrange for these when deemed necessary.

The question of the accommodation at Mackenzie's was raised and discussed.

The fourth meeting of the Council was held on Friday, April 22nd, Dr. Herringham (the President) in the Chair.

The report of the Finance Sub-Committee of the Union was read, discussed, and adopted.

It was decided that order books for goods be supplied to the various clubs, and that orders for goods should be signed by the Hon. Treasurers before being sent out.

The desirability of binding Club Secretaries to obtain goods from one firm in order to secure discount was discussed, and opinion was divided on the matter. It was decided that the Secretaries of the Union should meet the Secretaries of the Clubs and consult their wishes on the matter.

The election of the Sub-Editor of the JOURNAL was held over pending the receipt of a recommendation from the Publication Committee.

A special informal meeting of the Council was held on May 5th, Mr. Hogarth (Vice-President) in the Chair.

The work done by the Council was reviewed, and the powers and policy of the Council considered.

Messrs. Neligan and Gauvain were requested to draw up a plan for re-furnishing the Smoking Room and putting it into order.

It was decided that the Hon. Treasurers be asked to prepare a statement of the financial condition of the Union.

A meeting of the Council was held on Friday, May 13th, Dr. Herringham (the President) in the Chair.

It was decided that Secretaries of Clubs be allowed to exercise their discretion in regard to the choice of firms with whom they should deal for club requisites.

The reply of the Medical School Committee to the requests of the Union Council was read. It stated:

(i) That the Committee approves of the proposals to permit tennis at Winchmore Hill on Sundays.

(ii) That the other subjects brought to the notice of the Committee, viz. accommodation for students at night, the Library, the re-furnishing of the Abernethian and Smoking Rooms, were receiving attention.

It was also announced that the Medical School Committee had agreed to supply hair brushes, clothes brushes, etc., in the Cloak Room.

A detailed report of the financial condition of the Union was received from the Hon. Treasurers. The average yearly income for the last three years was £751 2s. 10d., the average yearly expenditure £780 15s. 6d. Last year's income was £760 7s. 2d. For details of last year's expenditure see HOSPITAL JOURNAL, March, 1904, page 102. A gratifying feature in the report was the steadily increasing profit on the sale of the JOURNAL.

A Sub-Committee, consisting of Messrs. Ash, Hogarth, Loughborough, and Phillips, was appointed to inquire into

the question of Hospital colours, hat-bands, and club blazers, and advise on their retention or alteration.

The Secretaries were ordered to approach the Abernethian Society for the purpose of taking over the control of the Abernethian Room.

The report of Messrs. Neligan and Gauvain, who had been appointed to draw up a plan and estimate for putting in order the Smoking Room, was received and adopted. The Secretaries were directed to communicate to the Dean of the Medical School the substance of the report.

On the recommendation of the Publication Committee Mr. Waterfield was elected sub-editor of the JOURNAL for a period of six months.

Suggestions from the Suggestion Book were considered; the Vice-President's replies are written in the book, which is kept in the Abernethian Room.

In addition to the above suggestions, Mr. Loughborough proposed:

(i) That an inquiry bell be put at the entrance of the Medical School to communicate with the Cloak Room.

(ii) That a notice "Cloak Room and Lavatory" be put at the head of the staircase leading to the Cloak Room.

(iii) That the conduits in the lavatory be kept in working order.

The Secretaries were directed to forward these suggestions to the Dean of the Medical School and recommend their adoption.

CRICKET CLUB.

ST. BART'S v. THE WANDERERS.

The Hospital opened their season on Saturday, May 7th, at Winchmore Hill, with a match against a very strong team of the Surrey Wanderers, and in spite of an excellent innings by W. B. Griffin, who scored 66, the Hospital lost by 4 wickets. We were unfortunately one short at the last minute. The Hospital ought to have an excellent season this year as there is plenty of new talent.

SCORES.

ST. BART'S.		THE WANDERERS.	
W. B. Griffin, st Latham, b Jephson	66	E. A. Beldam, c Eckstein, b Griffin	11
G. Viner, c Taylor, b Jephson	5	A. E. Damian, c De Verteuil, b Page	36
J. Eckstein, b Taylor	1	H. M. Langdale, b Eckstein ..	29
L. F. K. Way, b Jephson ..	3	L. S. Wells, b Griffin	13
W. S. Neale, b Barker	7	K. E. M. Barker, l-b-w, b Griffin	4
E. de Verteuil, c Colman, b Wells	17	D. L. A. Jephson, not out ...	32
A. R. Pinder, absent.		A. M. Latham, c and b Page ..	1
C. J. Armstrong-Dash, b Taylor	3	J. G. Hadath, not out	2
J. F. Gaskell, not out	6	H. F. Waller, } did not bat.	
G. F. Page, b Taylor	1	O. Taylor, }	
G. K. Maclean, b Taylor ..	0	S. Colman, }	
Extras	10	Extras	20
Total	119	Total	148

BOWLING ANALYSIS.

	Overs.	Maidens.	Runs.	Wickets.
Griffin	9	4	15	3
Page	14	3	47	2
Eckstein	11	3	44	1
Gaskell	6	0	22	0

ST. BART.'S v. THE SANATORIUM.

The above match took place at Virginia Water, on Saturday, May 14th, and ended in a drawn game. For the Hospital W. B. Griffin with 75, J. Eckstein with 38, and Tha Htoon'oo with 34 not out batted well.

SCORES.

THE SANATORIUM.		ST. BART.'S.	
Bishop, c Page, b Griffin ...	10	J. F. Gaskell, l-b-w, b	
Keenan, c Nealor, b Bowen ...	112	Havers	25
Meads, l-b-w, b Tha		W. B. Griffin, c Keenan,	
Htoon'oo	23	b Havers	75
L. Havers, c and b Tha		G. Viner, l-b-w, b Meads...	10
Htoon'oo	42	Tha Htoon'oo, not out.....	34
W. Hill, b Tha Htoon'oo...	13	P. A. With, c Havers, b	
Smith, l-b-w, b Eckstein ...	5	Meads	4
Aries, not out.....	16	J. Eckstein, c Aries, b Meads	38
Extras	26	E. de Verteuil, not out	1
		G. Bowen,	
		W. S. Nealor,	
		L. L. Phillips, } did not bat.	
		G. F. Page,	
		G. K. Maclean,	
Total (for 6 wks.)* 247		Extras	10
* Innings declared.		Total (for 5 wks) ...	197

BOWLING ANALYSIS.

	Overs.	Maidens.	Runs.	Wickets.
Htoon'oo.....	25	6	57	3
Bowen	6	0	21	1
Griffin	9	0	49	1
Eckstein	20	4	48	1
Page	8	0	23	0
Gaskell	7	1	19	0
Phillips	1	0	4	0

The match v. Henley, on May 21st, had to be abandoned owing to the bad weather at Henley.

SWIMMING CLUB.

On Saturday, May 14th, we met Cambridge in the first match of the season, in which we were heavily beaten—11 goals to *nil*. This result was mainly due to the pace and training of the visitors, in which we were entirely outmatched, each individual man being more alert and quicker on the ball than the home team.

For us Watkins and McDonagh played the best, and had the lion's share of the work, but Hanschel was not up to his usual form; while for the visitors it would be invidious to pick out any individual player. After the match the teams had tea at the Holborn Restaurant. Team:

H. M. Hanschel (goal); R. C. P. McDonagh, C. F. O. White (backs); J. G. Watkins (half-back); F. Trewby, H. J. Gauvain, R. C. Hoskins (forwards).

H. Dean very kindly acted as referee.

The club is very glad to see so much fresh blood, and hope that new comers will continue to practise diligently, since there will be many vacancies to fill up next year.

We are sorry G. T. Verry was unable to play for us in the above match as he was unwell.

The Musical Society.



WING to the unfortunate abandonment of the Christmas Entertainment the Musical Society has been less active than usual during the winter session. With the summer concert in view the Society has set to work energetically, and practices are being held on Tuesdays, at 4.30, in the Inquest Room.

It is to be hoped that all men who play any orchestral instrument will join the Society, and give their help towards making the summer concert a complete success.

Some slight reaction following on the celebration of the coming of age of the Society last year is perhaps only natural, but considering the number of men at Bart.'s this reaction should not be lasting, and

new men should be forthcoming to take the place of those who have left the Hospital.

For the Society to continue flourishing, however, it is further absolutely necessary for members to turn up as regularly as possible at the practices.

Further particulars can be obtained from the Secretary, H. R. Prentice.

St. Bartholomew's Hospital Medical Missionary Society.



THE annual meeting of the above Society will be held on Thursday, June 23rd, in the Inquest Room, at 5 p.m. We hope to have as our speaker W. R. Miller, Esq., M.R.C.S., L.R.C.P., of Hausaland. Dr. Champneys will take the chair. All members of the Hospital are cordially invited. The objects of this Society are—

1. To assist all those who have gone out from this Hospital to the mission field, and who are members of this Society—

(a) By remembering them in prayer.

(b) By helping them with money, specially towards the purchase of drugs, instruments, etc.

2. To publish or circulate information about medical missions, especially any we may from time to time receive from members of our Society in the mission field.

3. To keep up and increase interest in medical missions among past and present members of St. Bartholomew's Hospital.

Subscriptions and donations to the above would be very gratefully received by the Hon. Sec., who would be pleased to forward a copy of the Society's Magazine to any members of the Hospital.

MEMBERS IN THE MISSION FIELD.

A. Jukes, M.R.C.S., L.R.C.P., L.S.A., Kotgav, Punjab (C. M. S.).

C. J. Davenport, F.R.C.S., Wuchang, Central China (L. M. S.).

C. S. Edwards, M.R.C.S., L.R.C.P., Mombasa, East Africa.

Gaskoin Wright, M.R.C.S., L.R.C.P., Nablús, Palestine (C. M. S.).

E. W. G. Masterman, F.R.C.S., D.P.H., Jerusalem, Palestine (L. J. S.).

J. E. Williams, M.R.C.S., L.R.C.P., Shanghai, China (C. J. M.).

F. Johnson, M.B., F.R.C.S., Kerak, Palestine (C. M. S.).

C. Neill, M.B., B.C., Ranaghat, Bengal, India.

A. R. Cook, M.D., B.A., B.Sc., Uganda, Eq. East Africa (C. M. S.).

P. W. Brigstocke, M.B., Baghdad, Arabia (C. M. S.).

W. R. Miller, M.R.C.S., L.R.C.P., Hausaland, West Africa (C. M. S.).

J. Preston Maxwell, M.B., B.S., F.R.C.S., Changfoo, Amoy, China (E. P. M. S.).

J. Laidlaw Maxwell, M.D., B.S., Fainanfoo, Formosa (E. P. M. S.).

P. E. Turner, M.D., B.S., D.P.H., Nagarcoil, Southern India (S. A.).

A. E. Druitt, M.R.C.S., L.R.C.P., D.P.H., Hausaland, West Africa (C. M. S.).

F. Sanger, M.B., B.C., D.P.H., Pakhoi, South China (C. M. S.).

G. Everard Dodson, M.R.C.S., L.R.C.P., Kirman, Persia (C. M. S.).

H. H. Weir, M.B., B.A., Korea (S. P. G.).

Consultations.



IN this column we propose to publish each month a short note on the more important cases that are seen at the Thursday consultations, and, wherever possible, an account of the further progress of the case.

CONSULTATIONS.

APRIL 28TH.—Mr. Lockwood brought in a case of recurrent epithelioma of the lower jaw following a similar growth in the tongue and floor of the mouth, which was removed by operation six years ago. There were now in addition to the local recurrence some enlarged glands in the neck, and the man complained of pain affecting the side of the neck and the right ear.

Mr. Langton, Mr. Cripps, and Mr. Bailey advised removal of the growth and the glands in the neck.

Mr. Waring thought the growth involved the bone and glands, and would not operate.

The growth was afterwards removed together with a part of the lower jaw and some lymphatic glands.

Mr. Lockwood also showed a man, *æ*t. 43, with a large tumour of the right side of the pelvis. The tumour had been noticed for the past eighteen years, and had lately increased rapidly in size; it was hard and immovable. There was no bladder or rectal trouble. Mr. Lockwood thought the tumour was an exostosis, but in view of the fact that lately the tumour had been growing rather rapidly, it was possibly an ossifying sarcoma; it was apparently growing from the pubic bone.

Mr. Langton, Mr. Cripps, and Mr. Waring agreed with Mr. Lockwood that the tumour might be a sarcomatous one. They thought there was some indication of a pedicle, and all advised that an attempt should be made to remove it.

Mr. Lockwood subsequently operated on the man, and found a large, lobulated, and pedunculated exostosis capped with cartilage, which was growing from the pubic bone. It was removed with great difficulty together with part of the horizontal ramus of the os pubes.

MAY 12TH.—Mr. Langton exhibited a woman, *æ*t. 64, with a swelling in the neck of twelve months' duration; it had increased in size rapidly some three weeks ago. There was no dysphagia or dyspnoea, no enlarged glands. The diagnosis lay between (1) malignant disease of the thyroid and (2) cysts of thyroid with rapid accumulation of fluid. Mr. Langton proposed to explore with a needle and operate if he found fluid.

Mr. Alfred Willett thought the tumour a cyst with hæmorrhage into it. He could not altogether exclude an aneurysm.

Mr. Bowlby, Mr. D'Arcy Power, Mr. Waring, and Mr. Bailey also thought the tumour was a cyst of the thyroid into which hæmorrhage had occurred.

Mr. Langton operated and found a large cyst of the thyroid, there being no sign of recent hæmorrhage. This cyst was successfully removed.

Mr. D'Arcy Power showed a case of ulcer of the lip and an eruption on the skin of the back in a man *æ*t. 36. The diagnosis lay between syphilis and malignant disease, but he thought the ulcer was due to syphilis.

Mr. Alfred Willett was of opinion that the sore on the lip was an epithelioma. It was extremely hard, with a sloughy base and an ichorous discharge. He suggested that a piece be cut out for microscopical examination. There were some hard glands under the jaw. The skin eruption was not, he thought, syphilitic.

Mr. Langton did not think the sore was carcinomatous, nor did he think the rash had anything to do with it. He suggested potassium iodide and mercury.

Mr. Bowlby thought the ulcer was due to syphilis, but the rash was not quite characteristic.

Mr. Waring thought the ulcer had many of the characters of a malignant growth, and was an epithelioma; the skin eruption was of doubtful nature.

Mr. Bailey was of opinion that the ulcer was now an epithelioma which had begun in a syphilitic gumma.

All advised that a piece be taken out for microscopical examination.

The ulcer showed signs of rapidly healing under treatment with mercury and potassium iodide.

Motor Cars for Medical Men.

By AN OLD ST. BARTHOLOMEW'S MAN.

WING to the fact that I have for some years used both horses and automobiles for the carrying on of my practice in London, I often have the question put to me by medical men—would you recommend me to start a motor car, and if so, what will be the cost? To this an unqualified answer can never be given, as will be evident from the following remarks, which are intended to

help those who are considering the subject to arrive at some idea of the relative merits and cost of the two types of locomotion.

The first consideration is whether the car is to be used for town or country work, for it will be found that a car admirably suited for the country is not always the right type for the town. A country doctor generally has to travel considerable distances between the respective houses of his patients, and frequently over rough and hilly roads. He therefore requires a car of sufficient power to mount any gradient he may meet with at a fair speed, and as he is usually accustomed to drive in an open trap, the question of protection from the weather is not the most important one. Therefore a car with a phaeton or tonneau body, with a hood fitted to the front seats which, when opened up, comes forward and is buttoned by means of a leather flap to a glass shield fixed on the dashboard, gives almost complete protection from the weather, and is more comfortable to drive in than the open trap or hooded buggy. The only drawback to this arrangement is that it is somewhat awkward to get in and out from owing to the hood, but this is not of much importance.

Speaking somewhat broadly, I think that the automobile will prove far more useful than a horse and trap for country work, for the following reasons. It enables the owner to save at least 25 or 30 per cent. of his time on the road. This is indisputable. A motor car, at a moderate estimate, will average at least twelve miles an hour on the road, and, if there is any reason for hurry, will travel at double that pace. If kept in proper order and regularly cleaned it is always ready to start, and in less than two minutes from opening the stable doors it can be off and away. This is a great advantage for night work, as it is unnecessary to rouse a man from his bed to put in the horse or even to drive it. The man also can frequently be spared in the day time for other work if the owner drives himself, as there is no horse to hold when stopping.

There is, of course, no limit to the distance which can be covered as in the case of the horse, nor does it matter what is the state of the weather; indeed, in snowy and frosty weather, when the roads are very slippery, the motor car will be found to travel well, when a horse cannot stand.

The disadvantages to be considered are chiefly those of tyres and repairs, which cannot be so easily carried out in the country. Tyres undoubtedly are the chief source of worry, and one of the most serious items of cost in the upkeep of a car, but they (I am speaking more particularly of pneumatic tyres) have acquired a worse reputation than they deserve, because makers have in the past persisted in selling cars fitted with tyres which are too light, and therefore quite unsuited for the weight of the car and its probable work, in order to keep down the first cost of the vehicle. Always, when purchasing a motor car for country use, insist that it shall be fitted with "heavy car tyres," what-

ever be the weight of the car, and if the tyres of the driving wheels be fitted in addition with non-slipping bands, then the dread of punctures may be practically abolished, and there will be little or no trouble provided that they be kept fully inflated. Solid tyres are not much in favour in this country, and I have had but little experience of them, but I believe they are very efficient on the driving wheels provided that the springs be properly adjusted for them, and that the speed be restricted to not more than fifteen to eighteen miles an hour, so that the combination of pneumatics in front and solids behind may be recommended to those who have the fear of tyre troubles.

The question of repairs is one of which many conflicting opinions will be given. On the one hand you will hear of Mr. A., whose car is never out of the repairer's hands, and on the other of Mr. B., whose repair bill is next to nothing. The truth lies in the fact that the question of repairs is almost a personal one. Many owners have little or no knowledge of the machinery of their cars; they drive them recklessly at high speeds, use their brakes unmercifully, and generally subject the mechanism and the tyres to an unwarrantable strain, and then complain that they are continually requiring repairs. The motor car, in spite of the general opinion, rarely breaks down in good hands, and if a car be chosen from one of the leading manufacturers, English or French, it should require few or no repairs during the first year if used carefully. I am not saying that adjustments will not be required from time to time, but these are common to all machinery, and are quite easily carried out by anyone of average intelligence. Here I may state that, in my experience, medical men make very good motorists, and are usually very quick, from their practice of the inductive faculty, at arriving at a diagnosis of a fault in the running, and handy in making the necessary adjustments. At the end of the year, if a car has been fairly treated, it is advisable that it be completely overhauled by a competent mechanic, and any loose or worn bolts replaced and necessary adjustments made. This will not be a big item, and will do more to keep down the cost of repairs than if the car be allowed to run until something gives way or breaks, necessitating perhaps a big outlay. Another most important means of keeping down the repairs bill is to insist on the car being carefully washed down, dried, oiled, and adjusted daily. This I have insisted on with my cars, and the result has been that my repairs bill has amounted to a ridiculously small sum. On the other hand, if a car is simply washed down as to the body, and the frame, engine, and bearings be allowed to collect a coating of mud, oil, and rust, as is too often the case, it stands to reason that mischief will sooner or later supervene.

The next question is that of a driver, and many would-be motorists are deterred from buying a car because they have been told that a professional chauffeur or mechanic asking costly wages will be required. Nothing, in my opinion, is

more unnecessary. I do not hesitate to advise all would-be motorists among medical men to avoid all so-called chauffeurs and mechanics if they are running a medium-priced and sized car, and find a good, intelligent coachman or groom who is willing to have a fortnight's training as a driver. It will not take much longer than this to teach him how to drive intelligently and what *not* to do. The argument that a trained mechanic is necessary as a driver is quite fallacious. If a car really breaks down or an accident happens, then it will have to go into the repair shop anyhow, whereas if some adjustment is all that is necessary an intelligent coachman or groom will do as well as a mechanic. Finally, he knows how to wash a carriage properly, and anyone who has seen a carriage cleaned and turned out by a coachman contrasted with that of the chauffeur will know what I mean. I adopted this plan myself, and have been fully satisfied with the result.

The question of the choice of a car for country work is too wide a one to be discussed in this paper, as any sum from £100 to £800 can be spent on a car for this purpose, but as a general rule it will be found that a medium-priced car with two cylinders will prove cheaper and handier than any other. It is lighter than a four-cylinder. Therefore the wear and tear of tyres and consequent cost of upkeep is markedly lessened, and it will do all the work as well, if not better, than the larger car. It is true that the four-cylinder car is quieter and smoother in running, but for general handiness a ten to twelve horse-power two-cylinder car of good make cannot be surpassed. This will cost from £250 to £350, according to the make. If this sum is considered to be too great then a smaller powered car with one cylinder may be chosen, of not less than six horse-power, and there are many efficient and silent types which are thoroughly reliable to be bought from £150 to £220. It must not be forgotten, in contrasting the cost of the two modes of locomotion, that depreciation of value is a large item in motor cars. Owing to the continual improvement and alteration in pattern, a car very soon becomes out of date, and then of course depreciates largely in value. Most insurance companies reckon this depreciation at 20 per cent. for the first year, and 50 per cent. for the second.

The cost of running will of course vary with the size of the car and the mileage covered, and I think the best way will be to give an example of a year's actual running on a second-hand two-cylinder car. Number of miles run 4727. Costs for this distance:—Petrol £14 18s. 10d., oil and grease £1 10s. 6d., accumulators recharged £1 1s., repairs £3 12s., tyres (averaged) £11 5s., total £32 7s. 5d., which works out at 1'64 per mile. Petrol works out at 20'5 miles per gallon, at 1s. 3½d. per gallon. To these must of course be added rent of stable and taxes, wages of man (in the case of a small car a boy only is necessary), livery, licences, and insurance.

These, which are actual running figures, will, I think,

contrast very favourably with the upkeep of a horse and trap. I have given these details in connection with the keeping of a motor car in the country as the requirements for a town practice are somewhat different. In the first place in town the car is always running in traffic, and it is therefore a desideratum that it should be of sufficient power to pick up speed quickly and get away after a check without the necessity of changing the gear every time. This implies a car of somewhat higher power. Secondly, I think it must be admitted that a motor car for town use giving complete protection from the weather at a moderate price is at present unattainable. It is true that one can obtain a combination of a hood and glass shield such as has already been described, but this, while perfectly suitable for a country practice, where stoppages are not so frequent, and where suitable macintosh and clothing can be worn, is not so convenient for the town man dressed in top hat and frock coat. The only other fitment which at all meets the case is a canopy with side curtains; but even this is open at the front, and necessitates alighting in the muddy road. The combination of car and canopy is also, in my opinion, very ugly. If, however, a fairly large sum can be expended, £400 and upwards, there is plenty of choice, either broughams, landaulettes, or limousines, but these, from their cost at present, can only be indulged in by the comparatively well-to-do man. Still, in town the motor car has many advantages. A very large amount of time can be saved, it is decidedly exhilarating (anyone who has spent four hours in a brougham and the equivalent in a motor car on his rounds will know what I mean), it is always ready, and can be kept out for any length of time, and, owing to the large number of garages now in existence, it can be kept for an inclusive charge, without the expense of renting a stable, in almost any part of town. The chief desiderata for a town car are that it should be of fair power (ten to twelve horse-power, with two or more cylinders), that it has good brakes, that it is silent and easily started, and last, but most important of all, that it be fitted with non-skidding tyres. This is imperative. The only accidents which I have had in the course of some six years motoring have been three in number, and all of them were due to side slips on greasy roads. The best of these appliances are Samson or See bands, Wilkinson's bands and Parson's chains, all of which are reliable for the purpose.

In conclusion, it should not be forgotten that a motor car enables the hard-worked medical man in town to get agreeable recreation whenever he can get an hour or two to spare. Nothing is more delightful on a fine Sunday in the summer, after seeing the few patients absolutely necessary, than to put in a luncheon basket, pick up a friend or two, and go for a fifty-mile spin into the country. One returns, after a delightful day, thoroughly refreshed in body and mind, with an appetite to be envied, and to sleep soundly and well.

By the Way.

WE have received the following extracts of letters from an old Bart.'s man, Dr. D. J. Drake, who is principal medical officer of a large tea estate in Assam. The letters are written by the Babu doctors when applying for vacant medical posts in the various tea gardens.

"Owing to my bad constillation I am obliged to serve here compoundership. You have great predominance; you can easily to patronise me. My large family entirely depend upon me. I belong to noble family; it is very defficult for a noble man to live here without employment. I perambulated all the tea gardens for any billet, but my day star turns away on my past. Though I have some patrimony I am quite unable to supply my large family with that patrimony. I am wretched fellow, so I beg to get compassion from you invariably. It is my credible that if you contrive then you can easily support my large family by your conviviality.

"Half anna stamp is annexed for reply.

"Kindly inform me about my application at your earliest convenience."

Another writes: "I request to your honour to kindly change me from here; also you have seen my work well. I hope you will be kind enough to provide me with my family."

Dr. Drake also tells the following story:

A Babu was engaged in a tea garden, and was given the option by the manager of either receiving a bicycle or a horse with which to get round his work. He chose the horse saying, "If master gives me leave for horse, then shall I, by God's mercy, at the end of perhaps one or two years have young horse by him, and so have two horses. But bicycle, only one bicycle for ever!"

THE Holborn Surgical Instrument Co. are offering prizes for the three best lists of surgical instruments with which a surgeon should provide himself on undertaking general practice: the outlay must not exceed £25. The competition closes on June 30th. Further particulars can be obtained from the Company at 26, Thavies Inn, Holborn Circus.

WE are much indebted to Mr. F. W. Strugnell for sending us the complete poem upon the late Sir William Savory. Mr. Strugnell has the original copy of the ode, which was composed by an old Bartholomew's man, F. E. Jackson. If the accuracy of the ode be not doubted, the author was the only successful candidate out of twenty-five on the eventful day. Doubtless "flushed with the flowing bowl" he poured out his soul in poetry. He has

written other poems, but unfortunately space forbids us to publish them at present.

Bill Savory of Bartholomew's,
By Galen's soul he swore,
Of five and twenty candidates
I will pluck twenty-four;
By Galen's soul he swore it,
And set aside a day,
When men should come from every town,
And, having paid their five quid down,
Be plucked, and go away.

Lane of St. Mary's Hospital
To Savory quoth he,—
Lo! I will stand at thy right hand
And spin the men with thee.
Then out spake Dicky Partridge,—
Fron King's, I ween, came he,
I will abide at thy left side
And plough the men with thee.

Bright was the first of April,
E'en Lincoln's Inn looked gay,
And rosy Phœbus shone to greet
The groups of students in the street;
It was an All Fools day.
Dixon, Benson, Ilott too,
With many others stood,
And chattered gaily of the glands,
And nerves supplied to feet and hands,
And of the salts of blood.

Apart from these strode Jackson,
Flushed with the flowing bowl,
The "pectoralis major" was
The weight upon his soul;
And from his teeth clenched tightly
The words came fast and thick,
"Sternum and costal cartilage,"
"Aponeurosis of oblique."

Savory, Lane, and Partridge,
Their solemn oath they kept,
And on that spring-tide evening
Full many a student wept.
But there was one occurrence,
Which although strange was true,
That Jackson of Bartholomew's
Did actually get through.

Struck by his martial bearing,
And wondering at the grace
Of unobtrusive piety
Shown in his manly face,
Their souls were filled with pity,
Said they the man's no ass,
We've plucked our four and twenty
So we'll let the beggar pass.

April, 1871.

F. E. JACKSON.

Overheard in Hospital.

Visiting Physician prescribes Hst Flavius

Patient (on reading board later).—"To die soon." I say, this is all right; but I'm off pretty quick. I'm not going "round the corner" for no blooming doctors (*exit instantanter*).

Locum in Surgery (meeting his senior).—I have just seen a case which might be intussusception or prolapse of rectum. I rather think it's an intussusception.

Senior.—I suppose you want me to see it!

Locum.—No! I have sent it home.

Senior.—Coming up to-morrow, I suppose!

Locum.—No! Told it to come up again in a week! (collapse of senior).

FURTHER NOTE ON ASEPSIS.

H. S. (on Monday morning, to dresser about to use a probe from pocket-case).—I say, have you boiled that probe?

Dresser (almost indignantly).—Yes! I boiled it last thing on Saturday morning.

Why did Budge budge? Because Cross crossed him.

Correspondence.

To the Editor of the St. Bartholomew's Hospital Journal.

DEAR SIR,—The omission of the name of Oxford in the announcement of the results of the Students' Union election, which was complained of by "A Student of one of the other Universities," was accidental.

Yours faithfully,

H. J. GAUVAIN,
Hon. Sec. Students' Union.

The Rahere Lodge, No. 2546.



AN ordinary meeting of the Rahere Lodge, No. 2546, was held at Oddemino's Imperial Restaurant, Regent Street, W., on Tuesday, the 17th inst., W. Bro. Ernest Clarke, F.R.C.S., W.M., in the chair. The Brethren unanimously voted a donation of One Hundred Guineas by the Lodge towards the Rebuilding Fund of St. Bartholomew's Hospital; and also agreed to subscriptions of Ten Guineas each to the Boys' and Girls' Schools. W. Bro. J. H. Gilbertson, P.P.G.D. Herts, was elected W.M. for the ensuing year; while W. Bro. Clement Godson, M.D., P.G.D., was re-elected Treasurer. A considerable number of the Masters and Wardens of the Medical Lodges in London attended in response to a special invitation, and, together with other guests, subsequently dined with the members of the Lodge.

Calendar.

- Wed., June 1.—Clinical Lecture—Mr. Bowlby.
 Fri., " 3.—Dr. West and Mr. Bowlby on duty.
 Clinical Lecture—Dr. Gee.
 Sat., " 4.—St. B. H. C.C. v. M.C.C., at Winchmore Hill.
 Sun., " 5.—1st Sunday after Trinity.
 Mon., " 6.—Special Lecture, Orthopaedics—Mr. Eccles.
 Tues., " 7.—Dr. Ormerod and Mr. Lockwood on duty.
 Wed., " 8.—St. B. H. C.C. Past v. Present, at Winchmore Hill.
 Clinical Lecture—Mr. Bruce Clarke.
 Thurs., " 9.—St. B. H. S.C. v. Richmond S.C., at Holborn Baths.
 St. B. H. Christian Union—Rev. C. A. Stewart.
 Fri., " 10.—Dr. Gee and Mr. Langton on duty.
 Clinical Lecture—Sir Dyce Duckworth.
 Sat., " 11.—St. B. H. C.C. v. Addlestone, at Addlestone.
 St. B. H. Tennis Club v. Ealing L.T.C. at Ealing.
 Sun., " 12.—2nd Sunday after Trinity.
 St. B. H. S.C. v. Cambridge, at Cambridge.
 Mon., " 13.—Special Lecture, Skins—Dr. Ormerod.
 Tues., " 14.—Sir Dyce Duckworth and Mr. Cripps on duty.
 Wed., " 15.—St. B. H. C.C. v. Enfield, at Winchmore Hill.
 St. B. H. S.C. v. Queen's, Westminster, S.C., at Westminster.
 St. B. H. Tennis Club v. Wanstead at Wanstead.
 Clinical Lecture—Mr. Bruce Clarke.
 Thurs., " 16.—St. B. H. Christian Union—Annual Business Meeting.
 Fri., " 17.—Dr. Norman Moore and Mr. Bruce Clarke on duty.
 Clinical Lecture—Dr. Norman Moore.
 Sat., " 18.—St. B. H. C.C. v. Hampstead, at Hampstead.
 St. B. H. Tennis Club v. Hornsey at Winchmore Hill.
 Sun., " 19.—3rd Sunday after Trinity.
 Mon., " 20.—Special Lecture—Dr. Lewis Jones.
 Tues., " 21.—Dr. West and Mr. Bowlby on duty.
 Wed., " 22.—Hospital Sports at Winchmore Hill.
 Thurs., " 23.—St. B. H. Christian Union—Biennial Meeting.
 Medical Mission Society.
 Clinical Lecture—Mr. Bruce Clarke.
 Fri., " 24.—Dr. Ormerod and Mr. Lockwood on duty.
 Clinical Lecture—Dr. West.
 Sat., " 25.—St. B. H. C.C. v. Dunstable Grammar Sch., at Dunstable.
 St. B. H. Tennis Club v. Lancaster L.T.C. at Winchmore Hill.
 Sun., " 26.—4th Sunday after Trinity.
 Tues., " 28.—Dr. Gee and Mr. Langton on duty.
 Wed., " 29.—Clinical Lecture—Mr. Lockwood.

Reviews.

OPHTHALMOLOGICAL ANATOMY, WITH SOME ILLUSTRATIVE CASES.
 By J. HERBERT FISHER, M.B., B.S.Lond., F.R.C.S.Eng.
 (London: Hodder and Stoughton, 1904.) Price 7s. 6d.

Mr. Fisher has not attempted in this work to include all that might be written under the above title, he has endeavoured to make clear those anatomical points which in the smaller text-books are passed over, and in this he has succeeded admirably.

In the chapter on ocular movements Mr. Fisher is perhaps at his best, the actions of the various muscles are explained in a particularly lucid manner. Mr. Fisher does not allow to the capsule of Tenon the importance with regard to these movements that is usually ascribed to it, and here we are inclined to agree with him. The parietal layer of Tenon's capsule blends anteriorly with the conjunctiva at the limbus and posteriorly with the dura mater of the optic nerve sheath, the visceral layer being merely a lamina of extreme tenuity blending with the surface of the sclerotic. If the

ocular movements take place between these two layers the circulation in the small vessels which enter the eyeball posteriorly, after having passed through both layers, will be much interfered with and it will necessitate the optic nerve playing up and down its dural sheath like a piston in its cylinder. Mr. Fisher believes, therefore, that the movements take place between the parietal layer and the orbital fat which latter at the normal temperature is, of course, in a semi-fluid condition. The value of the capsule will therefore be rather of a protective nature allowing the globe to slip to one side and thus to escape injury.

With regard to arterio-venous aneurism in the cavernous sinus the treatment usually advocated is that the common carotid artery be ligatured. The condition is seldom ameliorated by this operation, and Mr. Fisher advises that a better result may be obtained by ligation of the internal carotid. Here again we agree cordially, the operation of proximal ligation of the common carotid is not a good one, and is followed in a large number of cases by cerebral symptoms, due to the diminished blood pressure in the circle of Willis. The blood in the internal carotid changes its direction and flows downwards to again ascend in the external carotid and in this way a constant drain is established on the already diminished cerebral circulation. The fact that the common carotid is so often chosen for ligation can only be accounted for by the reason that ligation of the internal carotid artery is rather a difficult operation.

In Part II Mr. Fisher has collected a large number of extremely interesting cases chiefly relating to somewhat obscure nervous lesions.

Mr. Fisher's book can be thoroughly recommended as a supplement to the ordinary text-books and will make a welcome addition to them.

MEDICAL LABORATORY METHODS AND TESTS. By HERBERT FRENCH, M.A., M.D.(Oxon.), etc. (Published by Messrs. Baillière, Tindall and Cox.) Price

A very useful and well-written "handbook for the medical laboratory." It is not intended to cover the same ground as Hutchison and Rainy's well-known *Clinical Methods*.

The contrast between the importance and fallacy of each method and test cannot fail to be of great service to the junior student. Especially good is the chapter on the examination of the blood, which is obviously the result of much original work, especially concerning eosinophilia.

The section on renal casts is not very full. We do not agree with the statement that Gmelin's test is superior to the iodine test for bile pigments; nor do we like the description of Widal's reaction for typhoid fever. The accuracy of this test depends so much upon the race and strain of typhoid bacilli used. "Cavitation" is not a pleasing word, and the diagrams are very crude.

Otherwise we have nothing but praise to offer, and we should advise every newly appointed research clerk to obtain and study a copy of this book.

PATENT FOODS AND PATENT MEDICINES. By ROBERT HUTCHISON, M.D., F.R.C.P. (Published by John Bale and Sons, London.) Price 1s. net.

A very interesting and useful little book, which fills in a wide gap in medical literature. All medical men should read this book because it concerns a subject that is seldom considered seriously. How many physicians or surgeons recognise that a patent food should be a substance small in bulk, containing the maximum of nutritious qualities, pleasant and stimulating to the appetite, easily digestible, and cheap; otherwise it has little value, and how few artificial foods approach this standard! The tables are very useful for reference, and how amusing it is to see at a glance what are the active principles of the various patent medicines which work such miraculous cures. The section upon "How to fight Quackery" should appeal to all members of our profession.

THE MEANING OF A MODERN HOSPITAL. By W. BRUCE CLARKE, M.A., M.B.Oxon., F.R.C.S. (Published by Longmans, Green and Co.) Price 1s. net.

We are glad that Mr. Bruce Clarke has published his address upon "The Requirements of a Modern Hospital" in book form.

The address was delivered to the Abernethian Society, and has already appeared in the JOURNAL. The book is simply written, and is very clear. Mr. Bruce Clarke constructs "no castles in the air": everything is simple and straightforward, and makes for efficiency rather than for show or grandeur. The plan of a typical hospital ward is a useful addition for the uninitiated. We are glad the author leaves the sister in close proximity to her ward. The note on residents' quarters does not appeal to us: we think Mr. Bruce Clarke, once a resident himself, might have said more. A very important point is touched in the section upon supervision. How many hospitals fail in this one respect alone? Mr. Bruce Clarke is very emphatic in his denunciation of jerry-built hospitals, and rightly too! We recommend the book to all.

Examinations.

PRIMARY F.R.C.S., MAY.

H. D. Davis, J. McD. Eckstein, A. Macmillan, H. E. Quick, C. A. S. Ridout.

CAMB., 3RD M.B.

Birkett, H. J. D., Colt, G. H., Coventon, A. W. D., Cripps, W. L., Hadfield, C. F., Harrison, E., Hine, T. G. M., Moore, R. F., Naish, W. V., Plowright, C. T. MacL., Pope, C. A. W.

FINAL COLLEGE.

Bell, K. D., Gibb, H. P., Ingouville, J. G., Hadfield, H. F., Heseltine, V. G., Moore, R. F., Pickering, W. C., Williams, E. K.

We have been asked for special reasons to note that Mr. R. H. Bott has passed the midwifery part of the Conjoint Board Examination. We understand that there is money in it.

LONDON M.B.

Collins, J. M., Kalapesi, R. M., Kidner, H. R., B.Sc., Maefadyen, N., Mackay, E. C., Pringle, E. G., Travers, E. F., Verling-Brown, C. R.

Appointments.

BODREL-ROBERTS, H. F., M.A.(Cant.), M.R.C.S., L.R.C.P., appointed Junior Assistant Medical Officer to the Warwickshire County Asylum, Hatton.

* * *

DRURY, G. D., M.R.C.S., L.R.C.P., appointed Junior Resident Medical Officer to the Seamen's Hospital, Greenwich.

* * *

FINEGAN, D.O'C., M.D.(Berlin), M.R.C.S., L.R.C.P., appointed Senior Clinical Assistant to the Throat Hospital, Golden Square, W.

* * *

GARDNER-MEDWIN, F. M., B.A.(Cant.), M.R.C.S., L.R.C.P., appointed House Surgeon at the Royal Southern Hospital, Liverpool.

* * *

NIALL, E. M., M.B.(Lond.), M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the Royal Waterloo Hospital for Children and Women.

* * *

PHILLIPS, LLEWELLYN, M.D.(Camb.), F.R.C.S., D.P.H., appointed Principal Medical Officer for the Gresham Life Insurance Office for Egypt, Palestine, and Syria; also Honorary Physician to the Anglo-American Hospital, Cairo.

New Addresses.

ATKINSON, H. W., Saffron Walden, Essex.

BODVEL-ROBERTS, H. F., Hatton Asylum, Warwick.

CRESSY, P. H., Timaru, Chelston, Torquay.

DUNN, J. CECIL S., Kimberley, near Nottingham, Notts.

FEGAN, R. A., 28, Charlton Road, Blackheath, S.E.

GILES, LEONARD T., 4, Filey Road, Scarborough.

JULIEN, Major O. R. A., R.A.M.C., Fort Pitt, Chatham.

LAUHLAN, HENRY D., 136, Lower Richmond Road, Putney, S.W.

MAUNSELL, B. S. O., Leicester Infirmary.

NELSON, H. DE B., 217, Barking Road, E.

PHILLIPS, LLEWELLYN, Maison Nahas, Midan el Somailieh, Cairo.

THOMAS, R. R., 36, Windsor Place, Cardiff.

Birth.

WALTER.—On May 1st, at 282, Lytham Road, Blackpool, the wife of R. A. Walter, M.R.C.S., L.R.C.P., of a son.

Marriage.

MÁSINÁ—PARAKH.—On the 16th April, at Bombay, Hormusjee Manekjee Másiná, F.R.C.S., to Jerbai Burjorjee R. Parakh, B.A.

Deaths.

BROWN.—On the 14th April, at Greenbushes, Western Australia, Robert Pollock Brown, M.R.C.S., L.R.C.P., youngest son of the late David Brown, Esq., of Woolston, Hants.

FOX.—On April 23rd, at Clodock, Abergavenny, G. Aubrey T. Fox, M.R.C.S., L.R.C.P., aged 37.

JAMESON.—On the 23rd April, Kathleen (née Mernagh), the beloved wife of R. M. Jameson, M.R.C.S., L.R.C.P., Witbank, Middleburg, Transvaal.

Acknowledgments.

The Gazettes of Guy's, London, St. Mary's, St. George's, St. Thomas's, and Charing Cross Hospitals; The Middlesex Hospital Journal, The Broad Way, The British Journal of Nursing, University of Durham College of Medicine Gazette, Journal of the Royal Italian Society of Hygiene, Brooklyn Medical Journal.

Books for Review.

1. *Materia Medica, Pharmacology, and Therapeutics.* Philips.
2. *Manual of Surgery.* Thomson and Miles.
3. *What we owe to Experiments on Animals.* Stephen Paget.
4. *The Case against Anti-vivisection.* Stephen Paget.